

Three Day International Conference

# PE-3C

Political Ecologies of  
Conflict, Capitalism and Contestation

## On The Meaning And Nature Of Contested 21st Century Political Ecologies

### Book of Abstracts

7 July 2016 — 9 July 2016

Hotel Wageningsche Berg

Wageningen, Netherlands

Organised by Wageningen University & Research Centre (WUR) and School of Oriental and  
African Studies (SOAS), University of London



## **Organizing committee**

- prof.dr. BE (Bram) Buscher - Sociology of Development and Change
- prof.dr.ir. JWM (Han) van Dijk - Sociology of Development and Change
- R (Robert) Fletcher PhD - Sociology of Development and Change
- dr. SP (Stasja) Koot - Sociology of Development and Change
- prof.dr. E (Esther) Turnhout - Forest and nature Conservation Policy
- prof.dr.ir. RA (Rutgerd) Boelens - Water Resources Management
- dr.ir. JMC (Jeroen) Vos - Water Resources Management
- dr.ir. CEP (Kees) Jansen - Knowledge Technology and Innovation
- dr.ir. CPG (Clemens) Driessen - Cultural Geography
- dr. SR (Simon) Bush - Environmental Policy
- Rosaleen Duffy - SOAS, the School of Oriental and African Studies University of London

## **Advisory committee**

- Giorgios Kallis (Universitat Autònoma de Barcelona)
- Nik Heynen (University of Georgia)
- Nancy Peluso (UC Berkeley)
- Maano Ramutsindela (University of Cape Town)
- Rod Neumann (Florida International University)
- Murat Arsel (Institute of Social Studies, Erasmus University)
- Ashish Kothari (Kalpavriksh)
- Tor Arve Benjaminsen (Norwegian University of Life Sciences)
- Wolfram Dressler (University of Melbourne)
- Ben Neimark (Lancaster University)
- John Childs (Lancaster University)
- Jamie Lorimer (Oxford University)
- Pdraig Carmody (Trinity College Dublin)
- Krithika Srinivasan (Exeter University)
- Anthony Bebbington (Clark University)

- Daniel Muenster (Heidelberg University)
- Gerardo Damonte (Univ Catol Peru)
- Tatiana Roa (CENSAT Colombia)
- Megan Ybarra (University of Washington)
- Alice Kelly (UC Berkeley, US)
- Chusak Wittayapak (Chiang Mai University)
- Edgar Isch (FORO Ecuador)
- Seema Kulkarni (SOPECOM India)
- Eric Swyngedouw (University of Manchester)
- Melissa Leach (IDS, Sussex University)
- KC Joy (Water Conflicts Forum, India)
- Aline Arroyo (CAMAREN, Ecuador)
- Joan Martinez-Allier (Barcelona)
- Patrick Bond (UKZN South Africa)
- Tom Perreault (Syracuse University)
- Esteban Castro (Newcastle University)
- Ben Crow (UC Santa Cruz)
- Arif Satria (Bogor Agricultural University)
- Robert Hitchcock (Michigan State University)
- Katja Neves (Concordia University)
- Danielle Hirsch (Both Ends)
- Simon Batterbury (Melbourne University)
- Francisco Peña (COLSAN Mexico)
- Ursula Münster (Ludwig-Maximilians-Universität München)

## Table of contents

1: Political contestations of ecosystem service policies: theoretical and empirical contributions .....	6
2: The political ecology of belonging and indigeneity under neoliberal capitalism.....	10
3: Capital Flows: Water, development and conflict in Jakarta, Indonesia .....	20
4: A Political Ecology of Modern Agriculture.....	24
5: The 'layeredness' of resource conflicts: exploring what is 'hidden' underneath struggles for access and control .....	28
6: Contestation and Violence against Market Sequestration in (Post-) Conflict Countries .....	32
7: Environments of Repression: New (and old) forms of state violence in Latin American Extractivism .....	36
8: The Political Ecology of Economic and Natural Resources in Mexico: Understanding People's Efforts to Curtail Poverty, Pollution and Scarcity.....	42
9: Conservation and/as unending war in sub-Saharan Africa .....	46
10: A Political Ecology of Diverse Actions, Ideologies, Hegemonies, and Contestations in the Americas and Globally.....	53
11: Landscapes of Knowledge, Power, and Resistance: The Political Ecologies of Flex Crops in Latin America .....	56
12: Contested extractivism, society and the state: Struggles of mining and land in times of global changes.....	60
13: Neoliberal Conservation and "actually existing" conservation in the Global North .....	65
14: Contestations over natural and mineral resources in Southern Africa.....	71
15: Negotiations of Plurinationality, Extraction and Environmental Politics in Latin America .....	75
16: Local intermediaries and the politics of resource conflict in extractive zones of India .....	81
17: Political Agency at the Grassroots and Alternative Development Practices.....	85
18: Conflict and Cooptation in Political Ecology. Discursive Strategies and Material Practices within ecological struggles in Latin America .....	92
19: Contestation, Participation and Violence in Indonesia's Oil Palm Industry.....	95
20: Post-Whatever: Power, Politics and Discourse in Rural Peripheries.....	102
21: The political ecology of future-making in rural Africa .....	107
22: Water Justice .....	110
23: Natural capital: interrogating 'capital', 'valuation' and the implications for equity, justice and rights.....	120
24: Troubled Waters: Political ecologies of hydro-social change in an urbanization context .....	124
25: Contestation Beyond Borders, Frontiers and Basins: Political Ecologies of Rivers and Land in Myanmar (Burma) .....	128

26: Commodification, Violence, and Environmental Governance in Southeast Asia: from above, below, and beyond? .....	132
27: Natures in Tension: Ontological Politics in Environmental Contestation .....	137
28: What nature is valued, what nature is protected? Extraction, conservation & social movements in Latin America.....	143
29: The Making of a Transnational Environmental Class? .....	147
30: The role of the state and global governance in political ecology .....	151
31: The State and New Perspectives on Conflict and Cooperation over Natural Resources .....	154
32: Political ecologies of the military .....	157
33: Violent Neoliberal Environments: The Political Ecology of “Green Wars” .....	161
34: More-than-human political ecologies: addressing multispecies justice in neoliberal times .....	167
35: Split Waters: Examining Conflicts Related to Water and Their Narration .....	171
36: Private –Equity, Public Affair: the ins and outs of process of financialisation of infrastructure in the water sector .....	176
37: Socialism, Marxism and the financialization of nature .....	182
38: New Technologies for Conservation: What are the social and ethical implications? .....	185
39: Fences and Fencing: Political Ecology and Development .....	189
40: The scalar politics of water for food and energy developmentalism 2.0.....	195
41: Resistance Café.....	199
42: POLLEN Roundtable.....	200
43: Water in Africa .....	201
44: Violence, hunting and contested industries.....	205
45: Contested water environments .....	209
46: Resistance and development under neoliberalism.....	212
47: Eviction, conservation and agency .....	215

## **1: Political contestations of ecosystem service policies: theoretical and empirical contributions**

Convenor: Vijay Kolinjivadi, McGill University

The ways in which ecosystem service policies have been communicated and institutionalized influence local struggles in the articulation of place-based environmental meanings by legitimizing some ways of relating to the environment while marginalizing others. The introduction of policy narratives such as Payments for Ecosystem Services (PES) carries value judgments in establishing the grammar by which nature is valued, resulting in a particular social rationality that is imposed on stakeholders who are otherwise unable to break down such judgments through collective deliberative scrutiny. The constellation of plural human-nature relationships and varying capacities to articulate them results in a messy and contested space of socially constructing socio-ecological systems, which is always in the process of 'becoming' in relation to dynamic frictions between collective agency and structural constraints (Van Hecken et al., 2015). In relation to ecosystem service policies, the 'glocal' represents how local actors enhance resilience by reworking, confronting and aligning with technocratic and imposed social rationalities towards the natural world. From the perspective of procedural justice, this collection of papers emphasizes inclusive democracy in elucidating discursive contestations that arise when economically culturally dominant worldviews and eco-social narratives are introduced. In doing so, they provide both theoretical and empirical expositions of how the discursive power of neoliberal natures often results in a 'twisting of rules' for PES and REDD+ on the ground as place-based histories, conflicts, worldviews, inequalities, and aspirations jostle for attention resulting in communities becoming active rather than passive recipients of dominant discourses (Matulis, 2015, Tadaki et al., 2015). The aim of discussion emerging from the panel is to identify opportunities for increasing mutual understanding while revealing prejudices and mutual ignorance over the social construction of ecosystem service assessments and policies (Barnaud and Antona, 2014). Moreover, is hoped such empirical investigation can shed light on the winners and losers in the spread of the ecosystem service concept.

### **Revisiting the 'PES Train': the fallacy of so-called "functional" narratives**

*Vijay Kolinjivadi, Gert Van Hecken, Nicolas Kosoy, Diana Vela Almeida*

In response to the emergence of multiple PES definitions largely inspired by the divergence between PES theory and practice, Sven Wunder redefined the canonical definition of PES in a special issue on ecosystem markets in *Ecological Economics*, in which he stresses the need for "functional" rather than normative inclusions to the definition in order to distinguish PES from previous conservation approaches. In this paper, we argue that despite attempts to demarketize the language defining PES in deflecting criticisms on PES as commodifying nature, the revised definition fails to recognize the discursive power associated with those

who have ridden the “PES train” to advance an unmistakably neoliberal agenda. Specifically, we analyze the written statements adopted by a number of major conservation NGOs and international financial institutions that have provided the greatest funding for PES over the last decade and assess the degree to which these statements reflect both: a) Noel Castree’s characteristics of “neoliberalization”, and b) Wunder’s definition of PES. In doing so, it becomes clear that shifting the market-based emphasis of the mainstream definition of PES is insufficient if it fails to recognize the discursive power that has already been leveraged to advance certain imaginaries of human-social relations over others. We argue that a “functional” definition of PES is only useful insofar as the analyst or researcher reflects upon the specific social rationalities of human-nature relationships that PES has historically privileged and institutionally embedded. Modifications to the language of the PES definition without such reflection will serve to reproduce uneven social and environmental impacts associated with dominant worldviews and provide continued impetus for political contestation where PES is being implemented.

### **Changing farmers’ land uses through financial incentives? An agrarian systems approach to understanding development pathways at the Nicaraguan agricultural frontier**

*Gert Van Hecken (University of Antwerp), Pierre Merlet, Mara Lindtner, Johan Bastiaensen*

Payments for Ecosystem Services (PES) have been hailed as a promising conservation tool. The growing amount of empirical evidence shows, however, that the presumed superiority of PES over other conservation mechanisms is not unequivocal. Growing evidence suggests that the effects of payments in inducing behavioural changes can vary substantially, depending on their social interpretation and on the way they are integrated in territorial dynamics. Payments will inevitably interact with intrinsic motivations and existing institutions, crowding-out or crowding-in more environmentally beneficial behaviour. Through an in-depth empirical analysis of a PES project at the agricultural frontier in Nicaragua, this article aims to contribute to a better understanding of how new institutional frameworks translate into incentives/motivations for land use change at the individual and collective level. We argue that in order to understand individual decision-making, it is crucial to understand collective dynamics. This also means moving beyond purely economic considerations of human-environment problems to encompass broader and often unacknowledged socio-cultural, political and knowledge-based dimensions of interventions. We show how an ‘agrarian systems’ approach, which explicitly deals with the key sources of social and ecological complexities and enables a much finer understanding of the dynamic interactions and outcomes on the ground, allows us to relate farmers’ individual motivations to collective development pathways in the area. Our case study demonstrates how the project payments have not succeeded in altering the production system logic of farmers, and therefore are unlikely to stimulate long-term ‘pro-environmental’ behaviour, at least if not accompanied with other types of interventions.

## **Beyond economization: hybrid socio-economies in the context of REDD+ in the Democratic Republic of Congo**

*Catherine Windey, University of Antwerp*

Over the past decade, the international policy framework 'Reducing Emission from Deforestation and Degradation' (REDD+) has received an increasing support from multilateral organizations as a way to tackle environmental change. However, it is often criticized for reflecting a 'commodification of nature', i.e. considering nature only from an utilitarian perspective, that leads to the reproduction of inequalities in access to resources and to the change of socio-ecological relations according to the capitalist market mode of production. Although this debate has raised central issues for the future research agenda on REDD+, it is often trapped in the "constraining categories of political economy, neoliberalism or the new institutional varieties of neo-classical economics" (Long 2001) and therefore lacks a thorough reflexive understanding of the socio-economic heterogeneity of the contexts in which REDD+ is implemented. Rather building on the concept of 'economization' (Çalışkan & Callon, 2009), this paper aims at going beyond the discursive categories of political economy and at better understanding the economization of nature under REDD+ as a particular regime of value (Appadurai, 1986), and how it enacts, is informed and is contested in interaction with other regimes of value and hybrid socio-economies. Through an in-depth ethnographic empirical analysis of three REDD+ projects in the Democratic Republic of Congo (DRC), it first shows how REDD+ rationale has been translated on the ground by describing and making intelligible REDD+ discourses, practices and dynamics, and how they constitute nature as being economic. Then it analyses the context-specific processes of valuation of nature, how they interrelate with socio-economic practices, decision-making and behaviours regarding natural resources and how they are framed by diverse socio-institutional systems and power relationships. Ultimately, this paper seeks to contribute to furthering theoretical reflections for tracing the multiple identities of the *glocal* and cross-scale socio-economic and socio-ecological practices that are hidden by a dominant policy and economic discourse.

## **Payment for ecosystem services in the context of the water-energy-food/land nexus: Whose water-energy and land/food security matters?**

*Jean Carlo Rodríguez de Francisco, German Development Institute (DIE)*

Payment for ecosystem services (PES) is a common mechanism for addressing externality problems among different natural resource users. Moreover, in the water-energy-food/land nexus context, PES is considered as a mechanism to integrate and coordinate claims and interests of different sectoral actors. This is, for example, the case, when downstream hydroelectric plants (for energy), water utilities and irrigation water users (for food) pay upstream farmers to adopt land use changes which seek to improve ecosystem service provision, thus reducing sedimentation and increasing or maintaining water quantity and



quality. Concerns from several societal actors, however, question PES as win-win-win mechanism for environmental conservation, poverty alleviation and as a nexus-panacea. Among others, some of these concerns refer to top-down decision making processes and land/food insecurity of local upstream farmers that have to face strict and ill-compensated land use restrictions. Based on a PES case study in Colombia, this paper analyses the ways in which PES implementation has incorporated the nexus framing into local resource governance and its implications for rural livelihoods. Our findings support that the more powerful actors (mainly those paying for ecosystem services provision) are able to incorporate their interests into PES institutions, while excluding (temporarily) the interests of less powerful natural resource users located upstream (those that may be receiving PES) and downstream of the ES buyers (those who are not even considered in PES deals). Furthermore, our results show the importance of social movements in reclaiming spaces for repositioning the interests of the less powerful in conservation conflicts.

**Empowering protesting actors through the social multi-criteria evaluation method:  
the case of Haren (Belgium)**

*Jérôme Pelenc (Université Libre de Bruxelles), Iker Extano, Beatriz Rodriguez-Labajos, Léa Sébastien, Breena Holland, Tom Bauler*

This paper explores the potentialities offered by the Social Multi-criteria Evaluation method (SMCE) (Munda, 2005) to empower social actors (Zografos and Rodriguez-Labajos, 2014) who are protesting against a mega-jail project in Haren (Brussels region, Belgium). This mega-project is planned to be built on a 20-ha natural site that provides a large array of ecosystem services to local inhabitants but also to the city of Brussels. The actors involved in the resistance are diverse, including the local inhabitants, farmers, NGOs, the ZADiste movement (standing for 'Zone to be defended') but also the syndicate of magistrates, an association of lawyers, and prisoners' friends and family association, among others. If there is a consensus on the 'NO' to the mega-jail there is no consensus on an alternative project that should be supported by all the opponents (i.e. an ecological farm, urban park, natural reserve, rehabilitation of prisoners, etc.). We intend to demonstrate that the SMCE process enables (i) a community-led assessment that is useful to produce counter-expertise to the official environmental impact assessment (ii) to foster mutual learning and mutual understanding in order to facilitate the co-construction of a collectively supported alternative scenario. In order to do so, we use the integrated theoretical framework that combines the ecosystem services approach and the capability approach developed by Pelenc and Ballet (2015) as a base to conduct the SMCE. This is expected to support mobilized actors in their struggle to challenge actual socio-political dominating power.

## **2: The political ecology of belonging and indigeneity under neoliberal capitalism**

Convenor: Stasja Koot, Wageningen University

Discussants: Catie Gressier, University of Melbourne

Robert Hitchcock, University of New Mexico

Gerard Verschoor, Wageningen University

The way people 'belong' to a place often holds conscious and unconscious political strategies that contain important ideas about their autochthony, which is often connected to contestations and even (violent) conflicts. In many cases, these ideas are related to nature, land, territory and the environment, concepts that are highly commodified in today's neoliberal capitalism. In this line, so-called indigenous people show signs of belonging when they embrace their status of indigeneity, since this is often based on framings of these people (by themselves and others) as if they belong in nature. This way, connecting to nature becomes a political strategy. However, in some countries, in particular in (southern) Africa (e.g. in Botswana, Namibia and South Africa), indigeneity is politically contested; most governments have not accepted it because they believe that *all* citizens of their countries are indigenous. Despite this, indigenous people often show their indigeneity and belonging in ways that perpetuate their image as stewards of nature. Simultaneously, capitalist activities and ideas (e.g. land ownership, territorial boundaries, agriculture, trophy hunting, wildlife crime, ecotourism, the extraction of natural resources) are influencing ideas of belonging and vice versa, thereby shaping or creating processes of contestation and (violent) conflicts. This happens among indigenous *and* non-indigenous people. In addition to indigenous people, other groups also show strategies of belonging through nature in politically contested and (violently) conflictual situations. For example, white southern Africans and other, non-indigenous, black groups tend to use strategies in which politics of belonging are related to land, territory and the environment. In this triple panel, we address these dynamics and how they work out, in particular in southern Africa, but we also make comparisons with case studies from other African, Asian and South American countries.

### **Contesting indigeneity as a politics of belonging under capitalism: An ecological perspective on land commodification**

*Stasja Koot, Wageningen University*

This paper investigates historical and contemporary land dynamics among former hunter-gatherers in post-apartheid South Africa. In South Africa, the ≠Khomani have received land back more than 15 years ago. They were gradually displaced between the 1930s and 1970s, but based on ideas of them as indigenous people who truly 'belong' to the Kalahari, they were reinstated as landowners in 1999, after the demise of apartheid. In belonging, people relate socio-culturally and psychologically to their environment, using emotional and

spiritual ties to claim autochthony. In this case, however, that does not mean that the historical injustice of land dispossession is now solved, which needs to be explained, by making a distinction between a genealogical and a relational or dwelling perspective on land (Ingold 2000). In the dwelling perspective, hunter-gatherers consider themselves custodians of their environment instead of land owners, although most contemporary indigenous land claims are based on the idea of *owning* the land. In contrast, the genealogical model is most often used by advocates (NGOs, governments, some anthropologists and donors) of indigenous peoples' rights, yet this perspective does not take into account two crucial elements that define the ≠Khomani's more relational perspective. First, that the meaning of the land has changed; it is not the same as the land that was taken away since in today's neoliberal capitalist environment land is treated mostly as commodified land to be owned. Second, the people that the land was taken from are not the same as those it is returned to.

### **Discourses of autochthony in Africa and the neoliberal global order**

*Marie Müller-Kone, Bonn International Center for Conversion (BICC)*

Discourses of autochthony (or „sons of the soil“) that have (re-)gained popularity in Africa and elsewhere since the early 1990s (Geschiere 2009) have mostly been analysed in connection with collective violence. Their exclusionary, relative character, in combination with a cultural indeterminacy and a tendency to ever narrower definitions of who is autochthonous, lend themselves to mobilisation for collective violence by political elites (Boas and Dunn 2009; Jackson 2006; Jackson and Geschiere 2006). This analytical focus on the connections to collective violence has arguably led to a neglect of analyses of different drivers of such discourses. How is the prominence of such discourses related to the expansion of an expanding neoliberal global order consisting of representative democracy and market economies (privatisation)? Do they occur despite or rather because of these global influences? These are questions that remain largely unaddressed.

The paper will address these questions by taking two different methodological avenues. First, it will investigate the theoretical links between the neoliberal order and discourses of autochthony to look for hidden complicities. This will be done through a literature review on the philosophical foundations of both neoliberal and autochthony discourses. Second, the paper will empirically trace the historical evolution of social inequalities between different ethnic groups („autochthonous“ and „migrants“) in Ivory Coast in regions affected by collective violence in the period 1990-2011, analysing evolving interests of different actors and how they have been affected by processes of commodification and privatisation. The paper is part of a doctoral research project on discourses of autochthony in Ivory Coast and Kenya and their inherent connections to the neoliberal global order.

## **Non-state territorialities and mobile populations: labour as a scientific object in nineteenth-century Zambesia**

*Elizabeth Haines, RHUL & Science Museum*

This paper explores the genealogy of the construction of the Zambesi-basin as a site of mobile labour for industrial capital. It asks what a better historical understanding of corporate demographic techniques and technologies can contribute to unraveling narratives of belonging and participation in the region.

In the late nineteenth-century Southern Africa recruiters and labour experts preceded (and sometimes acted as) government agents. Before colonial territorial boundaries were negotiated, let alone demarcated, these men were at work. From the 1880s onwards they travelled up from South Africa, with the ambition of assessing the labour potential of different African peoples and to prepare routes towards mines up to hundreds of miles away. By the late 1890s, this work was primarily undertaken by nascent 'Labour Bureaux'. The work was facilitated by the production of cartography, topographic writing and demographic representations. However, unlike later governmental efforts, the documentation of Southern Africa by the Labour Bureaux did not seek to tie colonial subjects to particular sites. Rather it aimed to document populations that were conceived as (or hoped to be) supremely fluid and mobile. It posited rather different connections between people and territory.

The presentation turns to the diaries, letters, reports and sketch maps of these early labour recruiters to identify a set of representational techniques and technologies for defining 'labour'. It further asks how these representations contributed to and contradicted the construction of early colonial governmental definitions of African autochthony in the region.

## **The Politics of Belonging and Exclusion among the Ju/'hoansi San of Namibia and Botswana**

*Robert K. Hitchcock, University of New Mexico*

The Nyae Nyae Ju/'hoansi and the neighboring Dobe-/Xai/Xai Ju/'hoansi are among the best known and most intensively studied peoples on the planet. The term Ju/'hoansi means 'true people' in the Ju/'hoan language. Numbering approximately 11,000 people in Botswana and Namibia, the Ju/'hoansi have resided in the northern Kalahari Desert region for generations. They are considered to be indigenous by themselves, non-government organizations, development workers, and social scientists, but the states in which they reside do not see them as indigenous but as rather disadvantaged minorities. Like all indigenous peoples, the Ju/'hoansi have a strong sense of belonging and attachment to their traditional areas – their *n!oresi*. These areas, which are found on both sides of the Botswana-Namibia border, are now the subject of a land rush by other groups, private companies, and the state which are seeking to utilize them for purposes of farming, pastoralism, mining, and tourism. In the

past, movements by the Ju/'hoansi between Botswana and Namibia were common, but a border fence was built in 1965 and a border post was established in the 1990s which required the Ju/'hoansi to have passports. Their land base has been reduced over time, from an area of 120,000 km<sup>2</sup> to one of 8,992 km<sup>2</sup> in Namibia and 25,500 km<sup>2</sup> in western Botswana. The Ju/'hoansi were also involuntarily relocated out of some protected areas, including the Tsodilo Hills of Botswana in 1994-95 and the Khaudum National Park in Namibia in the late 1990s and early 2000s. Since 2014, when the government of Botswana banned all hunting in the country except on freehold farms, the Ju/'hoansi and other people have not been able to hunt. The community trusts that they formed in the past two decades are being transferred increasingly into private hands. Today, the Ju/'hoansi of Nyae Nyae are the only people in Africa who have the right to hunt for subsistence purposes using traditional weapons. Hunting in the Nyae Nyae Conservancy area is of two types: commercial (safari) hunting and subsistence hunting. The benefits of safari hunting come in several forms: lease fees paid to the conservancy, employment as guides, and meat from trophy animals. Land use conflicts over hunting are seen in Botswana which has a shoot-to-kill policy for suspected 'poachers'. A major problem facing the Ju/'hoansi in Nyae Nyae has been competition with pastoralists over grazing and water. On April 29<sup>th</sup>, 2009, five Herero families from Gam cut the east-west veterinary cordon fence (the Red-Line Fence) between Gam and Nyae Nyae and brought 1,200 cattle into the area, setting in motion a chain of events that is still reverberating in the region. In July, 2015, members of the Nyae Nyae Community Forestry Committee, supported by the Ju/'hoan Traditional Authority and the Nyae Nyae Conservancy, filed legal cases against 4 illegal Herero grazers. This legal action demonstrates the degree to which the Ju/'hoansi want to defend their area from outsiders and to reinforce their control over their land and resources.

### **Belonging and Commodification in the Central Kalahari Game Reserve, Botswana**

*Maria Sapignoli, Max Planck Institute for Social Anthropology*

The Central Kalahari Game Reserve, the second largest protected area in Africa, has been the scene of struggles between local people and the state of Botswana over the rights of residence, access to natural resources, and social services. Over its five and a half decade long history, the people of the Central Kalahari have had to contend with drought, disease, development, the expansion of extractive industries including ones involving diamonds and other minerals, and decisions by the government of Botswana to relocate the residents of the reserve to places outside of the reserve. In response, the people of the Central Kalahari have sought the support of non-government organisations, anthropologists, lawyers, and development workers. After a series of involuntary relocations by the Botswana government in the 1990s and 2002, legal cases were filed against the Botswana government by some of the former residents of the reserve seeking the right to return to their ancestral lands and the rights to utilize natural resources. The San and Bakgalagadi of the Central Kalahari claimed that they were indigenous to the region, and this was the position taken by their

attorneys in the legal cases. Testimony in the legal cases addressed the importance of place, identity, and belonging. Discussions and story-telling among the witnesses and their supporters represented ways to assert their sense of belonging to the Central Kalahari Game Reserve and the social and natural environments of their birthplaces. At the same time, the fact that people had lost their homes underscored the fact that, as Catie Gressier (2015) puts it, belonging is never guaranteed. The paper addresses challenges facing the people who returned to the Central Kalahari, including arrests for hunting and possession of wildlife products in spite of the judgments of the High Court, the expansion of mineral exploration, hydraulic fracturing, and diamond mining activities in the Central Kalahari, the privatization of areas in the reserve for tourism companies, and the conflicts that have arisen over wildlife, water, land, livestock, and rights of entry in Botswana's largest protected area.

### **Relevance of home, land and the natural environment to the concept of self and belonging amongst South Africa migrants**

*Avela Njwambe and Michelle Cocks, Rhodes University*

South Africa is currently experiencing ever increasing rural-urban migration with many citizens from the former homeland areas migrating to cities to seek employment. Despite long term residence in urban areas, many township dwellers do not consider these places to be home. Research into circular-migration patterns reveal the lifelong relationships which migrants (amaGoduka) have with their family home (Ekhayeni). This study aimed to explore this relationship, looking in particular at the role of natural landscapes in the meanings and attachments to Ekhayeni for Xhosa-speaking migrants in Cape Town townships who had family linkages to rural villages in the Transkei. The study found that the landscape of home remained central to migrant's cultural identity, belonging and wellbeing. Childhood experiences in nature and the cultural activities which continue to take rural inhabitants into these landscapes remain key to this relationship. Migrants continued to return regularly to their rural homes to partake in activities and processes of identity formation which they felt could only be aligned with their place of birth. Cultural activities which were seen as central to the maintenance of masculine and feminine identity, such as rebuilding kraals and woodpiles, became a means by which migrants reiterated and reinforced their cultural identity and belonging. Such an understanding will contribute to the profound connection that people have to their land (whether currently occupied, or left behind through migration or enforced dispossession). The argument will be made that if injustices of colonial and apartheid rule are to be adequately addressed acknowledgement of such processes is necessary as land is not viewed simply as an economic asset, but as something which has a strong associations with people's identity.

## **Belonging, gender and the boundaries of the human in Okavango safari tourism**

*Catie Gressier, University of Melbourne*

For white Batswana safari guides in the Okavango Delta, Botswana, donning the khaki entails enacting frontier values that conform to romantic constructions of indigeneity, as constituted by deep connections to nature. Such performances of emplacement are significant as they underpin the nature tourism-based economy, while also serving as political and existential strategies of belonging for these white citizens living in postcolonial Botswana. Frontier performances are distinctly gendered, with high value placed on hunting prowess, resourcefulness, stoicism and physical strength, along with the ability to drink whiskey, shoot rifles and hold one's own in the African bush. These values have become normalised in local cultural values and practices, and there is an expectation that women, as well as men, personify these frontier characteristics. While trophy hunting has recently been banned in Botswana, through exploring the sometimes playful, sometimes anxiety-provoking performances of the 'Great White Hunter' as observed in my 2006-2008 ethnographic fieldwork, I argue that within white Batswana's eco-centric imaginaries, where misanthropy prevails while nature is deified, women have become men, and men, outmanoeuvring women once more, have become animals. Within this fascinating inversion of Ortner's (1974) famed thesis, women's long-awaited association with culture has fallen short of achieving gender equality, and I suggest that women are subject to a form of structural violence through their unequal access to the symbolic capital of belonging generated by men through their role as safari guides.

## **The Politics of Belonging: Indigeneity as a Marketable Idea**

*Enid Guene, University of Cologne*

In recent decades the concept of 'indigeneity' has gained significant prevalence. This was especially the case for the hunting and gathering, now largely known as 'indigenous', communities of Kenya. Kenya is the home of a comparatively large and diverse nexus of hunting and gathering communities who, until recently, have lived in the shadow of their more powerful neighbours with whom, in accordance with colonial policy, they had become increasingly amalgamated. However, in the last 20 years or so, there has been a resurgence of a hunter-gatherer identity. Thanks to such international platforms as the World Bank or the United Nations who imbued the terms 'indigenous' and 'minority' with political weight, formerly hunting communities have established a presence not only in the Kenyan political sphere but also internationally. In so doing, they have achieved unprecedented unity and visibility as well as put themselves at the centre of a series of well publicised debates on indigeneity, culture preservation, forest and wildlife conservation, etc. Especially in the latter, these communities have gained a degree of influence by presenting themselves as gatekeepers and protectors of their environment - fauna and flora alike - of which they claim to have intimate knowledge. This, however was at the cost of the appearance of new

dissents and tensions not only within self-professed indigenous communities themselves, as so-called community representatives are often accused of furthering their own agenda, but also with pastoralist neighbours. Indeed, because of their association with a nomadic lifestyle, pastoralists often find it more challenging to claim traditional ownership over a specific stretch of land. Consequently they often resent their more settled hunting and gathering neighbours who, though formerly dismissed as poor people without cattle, now tend to live in forested, more fertile areas and tend to be the first recipients of development aid.

### **Cultivating Indigeneity: The Politics of Belonging in South African Tea Farming**

*Sarah Ives, Stanford University*

Since apartheid, rooibos tea has moved from a uniquely South African beverage to a globalized commodity. As rooibos's economic value has risen, it has become a culturally significant product against which local residents measure their indigeneity, and, more broadly, their claim to belonging in South Africa. At stake in this context is not the conventional scholarly concept of indigeneity – as a binary relationship between people and place – but rather a more fluid claim to indigeneity based on a triadic relationship between plant, place, and person. With the majority of land still in white South Africans' hands, and neoliberal reforms leaving nearly half the population without work, indigeneity has taken on increasing importance as a political rallying point and means of survival. I demonstrate how mobilizations around cultural ownership are beginning to take precedence over more established social science concepts, including those of labor relations. Detailed ethnographic work in rooibos-producing communities – paired with an attention to the materiality of the plant itself – shows that claims to cultural ownership emerge in unexpected ways. Afrikaans farm owners espouse a white African indigeneity, in which their cultural survival seems to hinge upon a place-based identity. Yet many “coloured” farm workers resist attempts to be emplaced as “native,” a label that holds both the promise of redeeming their supposedly pathological identities and the threat of temporally incarcerating them in a state of primitivism or even extinction. Instead, they find economic possibilities in an indigenous plant. I conclude by rethinking the terms of relationality between white and coloured, people and plant, worker and commodity, and how the constellation of relations informs economically, politically, and ecologically significant senses of place and belonging that both opened and foreclosed certain kinds of resistance for workers.



## **The Politics of 'Rootedness' in the Making of Gudalur's Conservation and Development Landscape**

*Ajit Menon and Manasi Karthik*

The landscape of Gudalur<sup>1</sup> has been shaped and re-shaped by multiple waves of in and out-migration that date back to the pre-colonial period. The political-economic imperatives for these phases of migration have ranged from the development of capitalist relations within the estate economy to the compulsions of the Grow More Food Campaign to the formation of linguistic boundaries and statemaking -- as in the case of the Indian Tamils who were brought in as political repatriates under the Sirimavo-Sastri Pact of 1964. Notwithstanding this history of in-migration in the making of Gudalur, the politics of 'rootedness' has become central to the governance and management of natural resources. In the recent past, attempts to convert prior zamindari systems of land tenure to ryotwari, recognize forest rights and establish tiger reserves have all employed heuristics of belonging. A significant body of literature exists that critiques the sedentarist metaphysics of rootedness both from a social and ecological perspective, paying attention in particular to the discursive and material limits of essentialised readings of the local. This paper focuses specifically on how the politics of the local in Gudalur has shaped the political economy of development and conservation in the region. It highlights how the making of environmental subjectivities has necessitated rendering these variegated pasts as singular and how legal definitions render liminal spaces (between forest and non-forest, tribal and non-tribal, legality and the illegal) bounded.

## **Uprooted bandits or aquatic noble savages? The plight of Indonesian sea-nomads who don't belong**

*Annet Pauwelussen, Wageningen University*

The notion of indigeneity is highly politicized in Indonesia. Officially, the Indonesian Constitution recognizes indigenous peoples' (*masyarakat adat*) rights to their land and territories including access to natural resources. Embracing the status of 'indigenous people' has been instrumental for local people to claim such rights and build resistance to the encroachment of privatization and exploitation of the environment by capitalist enterprises. Problematic however is the terrestrial and spatial bias undergirding the notion of 'masyarakat adat', being associated with belonging or 'being rooted' to a certain place or terrestrial territory. Being an Island-country, many of Indonesia's ethnic groups are maritime. The Bajau people in particular are renowned for their sea-dwelling or even sea-

---

<sup>1</sup> Gudalur taluk is located in the low-lying hills of Nilgiri District of Tamil Nadu, India and is contiguous with the Bandipur Tiger Reserve and Wayanad Wildlife Sanctuary that extend into the neighbouring south Indian states of Karnataka and Kerala.

nomadic lifestyle. Dispersed over a vast maritime area, they live mostly from fishing and maritime trade. On-going exploitation of marine resources and the privatization of islands and coastal areas for resorts and aquaculture has deteriorated their livelihoods. While the Bajau have been portrayed as 'noble savages' in harmony with their liquid environment, they have also been referred to as uncivilized outlaws, engaged in illegal fishing and trade. To make them receptive to conservation and local development programs, environmentalists and NGOs have tried to turn them into 'indigenous peoples' tied to a place, an effort the Bajau have mostly evaded. The Bajau are doubly excluded, as their sea-nomadic lifestyle is at odds with the land-biased notion of indigeneity. Their relational belonging through mobile and trans-local webs of kinship and practice has no place in dominant discourses of what it means to belong. Discussing the case of the Bajau shows how the land-b(i)ased concept of indigeneity privileges land-dwelling, stationary people over those whose lives are constituted by movement, and points out the political relevance of acknowledging other ways in which belonging is practiced and framed.

### **Territorial partitions and the production of mining landscapes in Ecuador**

*Diana Vela-Almeida & Nicolas Kosoy, McGill University*

The current Ecuadorian agenda for large-scale mining extraction has placed the country at the heart of the expanding mining frontier in Latin America. Many local communities have opposed mining activities as the government grants mineral concessions over their territories. Local population sees these projects as a threat to their livelihoods and their ability to maintain their territories and social relations. At large, those concerns illustrate that even before modifying biophysical landscape, mining modifies the political, social and institutional landscape. We argue that social and political processes that advocate for mining collectively challenge previous socio-ecological arrangements in the territory. Our aim is to examine territorial and socio-political changes, in order to show how mining co-produces notions of 'territory' in distinctive ways. Territorial partitions represent multiple ways in which territory is co-produced through mining often beyond biophysical and material boundaries. Redefining territory as a co-produced space enables an understanding of not only the economic decisions that permit mining to shape territory, but also the ways in which mining shapes social relations and territorial definitions. In this paper, we analyse how the narratives for mining activities reshape institutional hierarchies, land tenure, productive transformations and resource use, governance frameworks, cultural appreciations and discourses. Finally, we argue that it is important to find policy-relevant solutions recognizing the implications of mining extraction for local people and the promotion of wellbeing for the people that depend on those territories.

## **We wanted the forest standing with us living inside it: Politics of Belonging in the Forest**

*Raquel Machaqueiro, George Washington University*

Created in the 1990s, in the Brazilian state of Acre, the extractive reserves constituted the outcome of a violent struggle led by rubber tappers to maintain the forest standing. Although many are descendants of migrants from Ceará, arrived during the first decades of the 20th century, rubber tappers see themselves as legitimate dwellers of the forest (along with the Indians). After the decline of the international rubber market, tappers fought against cattle-ranchers coming from the South, who wanted to convert Amazonia into a big pasture field. Not being able to deploy the category of Indigeneity to assert their rights and fight against these southerners, rubber tappers had to resort to other forms of resistance, including alliances with indigenous peoples, self-identity switches with indigeneity, and alliances with international environmentalist movements. Chico Mendes was the best known crafter of this latter move despite its ambiguous and tense results, including Mendes's framing as an "environmentalist", and the elision of his political affiliations. The creation of extractive reserves, following the same model of indigenous reserves, constituted a form of recognition of rubber tappers' struggles. However, the cunning of this recognition (cf. Povinelli 2002) is manifested in the framing of rubber tappers as natural "environmentalists" and their consequent criminalization when resisting this role. At the same time, state neoliberal policies, aiming at rendering the forest productive and commodifiable, now threat rubber tappers' claims of keeping the forest standing with them living inside. By imposing a development model based on "sustainable forest management" which is internationally promoted and certified, state policies not only shatter the spatial, social and economic organization of the forest on which rubber tappers depend, but also threaten their politics of belonging, challenging their identity references, anchored opposition to the city.

### **3: Capital Flows: Water, development and conflict in Jakarta, Indonesia**

Convenor: Michelle Kooy, UNESCO-IHE Institute for Water Education

Jakarta, the capital of Indonesia, is subject to rapid land subsidence, sinking at rates of up to 25 cm/year. Along with risks from seasonal flooding, land subsidence has created more hazards for the regional population of 28 million residents, exacerbating water insecurity caused by a complete lack of wastewater treatment/sanitation, insufficient piped water supply, and increasingly contaminated shallow and deep groundwater systems. The “fix” for the city’s ecological condition is being driven by capital investment and is highly contested by urban advocacy groups.

The solution being planned and implemented will see the re-development of the city’s waterfront—ostensibly for greater flood protection (constructing a giant sea wall, rehabilitating drainage canals and flood infrastructure). Yet this water-front plan is increasingly oriented towards capital investment and private sector led development of both expanded industrial port facilities and construction of new luxury real estate on reclaimed land. The planning for this mega project remains opaque, and is heavily influenced by the national and multi-national firms who want to benefit from the multi-million dollar engineering and construction contracts. These waterfront plans are highly contested by various social actors in the city, including environmentalists, activists, scholars, and Jakarta’s poorest residents who risk eviction as part of the planned solution. Within these debates over the city’s future, how might a political ecological approach open up space for more trenchant contestation and help mobilize claims to the preservation of diverse livelihoods within the city? How might such an analytic approach contribute to on-going efforts to bridge Jakarta’s deep socio-ecological divides and help to secure a more just and sustainable city for all inhabitants?

This panel session brings together a group of scholars / activists working on different dimensions of Jakarta’s political ecology, from a variety of academic disciplines, using different conceptual approaches, multi-scalar analyses, and sectoral foci. The papers seek to contribute a multi-dimensional political ecological analysis of the city’s waters – past, present, and future.

#### **Operationalizing a Political Ecology of Urbanization: Floods in Jakarta**

*Bosman Batubara (UNESCO-Institute for Water Education), Michelle Kooy and Margreet Zwarteveen (UNESCO-IHE/University of Amsterdam)*

This paper based presentation will conceptualize urban flooding as a process of uneven urban development rather than as a city-specific phenomenon. In so doing, we respond to recent calls for a political ecological approach to make sense of urbanization, framing it as a process rather than relying on ontological definitions of the city as a neatly bounded spatial

container. We explore the merits of shifting from urban political ecology (UPE) to the political ecology of urbanization (PEU) for the specific case of Jakarta.

To date, Jakarta's floods are characterized by a kind of methodological city-ism: they tend to be understood as phenomena that are city-bound and specific. Although there is recognition of how hydrological processes cross spatial boundaries, in terms of larger watersheds or hydrological units, most studies limit their analysis of flood events to the city itself. This makes it difficult to acknowledge how manifestations and impacts of floods are shaped by wider processes of urbanization, and also does not allow recognizing that the root causes of floods may be situated in rural areas.

This article seeks to contribute to the further politicization of flooding by explicitly crossing the urban-rural divide, tracing how urbanization processes shape the incidence, manifestation and impacts of flood events. We suggest that one fruitful way of responding to calls for shifting from UPE to PEU is to borrow key conceptual insights from the political ecology of agrarian change. In Indonesia, and SEA more broadly, there is a particularly rich tradition of political ecological studies of agrarian transformation that so far have been conducted in relative separation from critical urban studies. We suggest that a combination of the concepts of *access*, *exclusion* and *resistance* form a helpful theoretical triad to make sense of processes of flooding in Jakarta, processes that produce and are produced by unequal relations of power and highly uneven development trajectories.

### **Claims to Urban Heritage within the Rapidly Transforming Socio-Ecology of Jakarta**

*Rita Padawangi (National University of Singapore) and Rachel Thompson (Harvard University)*

Jakarta has long been subject to flooding. However, conditions have recently worsened due to local rapid land subsidence and global sea level rise. As Jakarta residents struggle to secure livelihoods in the city, amidst perennial cycles of tidal, monsoon, and riverine flooding, a tangled consortium of government and private interests seeks to both defend and revitalize the city through two massive projects of hydro-engineering in Jakarta Bay. A 32 kilometer seawall in the shape of the Garuda—the eagle-like bird of Hindu-Buddhist mythology—proffers protection against seawater intrusion, while the reclamation of 17 artificial islands promises a new frontier for luxury real estate development, within the densely-populated metropolis. This profit-driven aspiration to transform Jakarta into a cosmopolitan water-front city to compete with the likes of Singapore, has been greeted with considerable opposition by residents and activists concerned with preserving current environments and life-ways along the coast.

This research tracks the efforts of one of the oldest *kampungs* (urban villages) in Jakarta—Kampung Luar Batang—to maintain its footing within the rapidly transforming socio-ecology of the city. Said to date back to the 1630s, Kampung Luar Batang was itself long-ago reclaimed from once swampy coastal land, just outside the walls of the Dutch fortified city.

As the sea wall and artificial islands encroach from the north, muddying near-shore waters and foreclosing fishermen's access to the sea, UNESCO-led historical preservation efforts from the nearby Kota Tua ('Old City') seek to at once preserve and transform the centuries-old neighborhood, rendering it amenable to touristic consumption. In this paper, we analyze the multivalent effects of claims to historical longevity within a rubric of 'urban heritage.' While the promise of 'historic preservation' may deflect the risk of displacement in the face of coastal mega-developments, it also carries the risk of cultural commodification and erasure.

## **The Political Ecology of Urban Resilience and Ecological Security Planning in Jakarta, Indonesia**

*Emma Colven, University of California*

In recent years, the urban has become an increasingly prominent scale for the governance of adaptation and mitigation in response to environmental threats. It is within this context that international policy agendas and powerful discourses of urban resilience and ecological security have emerged, accompanied by the implementation of adaptation and mitigation infrastructure projects.

Jakarta's "National Capital Integrated Coastal Development" project is indicative of this trend: designed by a consortium of Dutch engineering and consultancy firms, the master plan proposes the construction of a giant sea wall intended to transform Jakarta Bay into a retention space, in addition to providing protection from flooding from the sea, and to transform the "threat" of flooding into an opportunity for urban development, thereby ensuring both the ecological and economic security of the capital. Despite continued debates and discussion over the causes of flooding and appropriate responses, water experts and Dutch and Indonesian government officials claim that the project is Jakarta's best option to achieve protection from flooding.

Yet, just as the impacts of environmental threats are unevenly distributed, so too will be the impacts of adaptation and mitigation projects, which may "undermine the stability of some social groups or places" even as they improve the situation for others (Heynen, Swyngedouw and Kaika, 2006:10).

Taking adaptation as a socio-political process (Eriksen, Nightingale and Eakin, 2015), this paper closely traces the production and circulation of narratives by Dutch water experts and government officials within and beyond Jakarta that frame the project as both desirable and commonsense. By engaging with UPE scholarship, this paper seeks to re-politicize adaptation in order to problematize the involvement of private actors, and the marketization and mobilization of adaptation expertise in securing cities against environmental threats, and to consider the implications for urban environmental justice.

## **(Dis)appearing Water: Disrupted socio-ecological narratives and civil society movements in Jakarta**

*Prathiwi W. Putri (independent researcher) and Amalinda Savirani (GadjahMada University)*

Flooding and other environmental issues around water governance appear and disappear within the contestation of spatial development narratives in Jakarta. Within the wide spectrum of issues ranging from ones articulated by the provincial government and actors of private sector, to mass media and community organisations, agendas of the neoliberal market economy often come to the fore and dominating the debates in policy making.

Our research aims to unpack the highly contested narratives around disparate yet intermingling water governance practices in Jakarta. One approach of political ecology seeks to politicize understanding of the distribution of water and sanitation services as a first step to create an emancipatory (research) project (Loftus 2009). The way politicisation takes place is through the use discourse or narrative, defined as 'ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices' (Hajer and Versteeg 2005). We intend to understand the contested narrative through the voice of people working with grassroots organisations in Jakarta, addressing the question of how the force of water narratives are constructed and operating, and to what extent they could create and maintain the porosity within the hegemonic policy making arena

Three initiatives constitute our cases study: 1) the experience of People's Coalition for the Rights to Water (KRuHA) and its networks to eliminate the regulation on water privatisation; 2) the initiative of Ciliwung Merdeka and partners to explore alternative housing solutions for (evicted) riverside communities, while setting a platform for campaign and advocacy; and 3) the program of a consortium of NGOs to strengthen community resilience in Jakarta's coastal area through an urban farming project.

## 4: A Political Ecology of Modern Agriculture

Convenors: Kees Jansen (Wageningen University, NL) & Antonio Castellanos-Navarrete (UNAM, Chiapas-Mexico)

Political ecology literature focuses predominantly on local situations with marginalized people and/or local resource users as subjects suffering from and, sometimes, resisting an expanding, mostly external, capitalism. What receives less attention is the social dynamics of modern agriculture with high control by capital and complex social-technical configurations that continuously produce technological solutions (addressing not only productive but also environmental, health, and ethical concerns). This raises the question if and how political ecology should develop new research directions that more directly address dynamic and dominant actors and practices in agriculture (related to industrialization, rationalization, increased complexity of commodity chains, science-driven innovation, standardization, 24/7 information flows, financialization, sustainability, and so on). What can be used from political ecology theory for analysing contemporary agriculture? What can be dropped? And what are the theoretical gaps? It is up for debate whether political ecology focuses too much on 'marginal' areas, enclosure, commoditization, and common property institutions thereby overlooking important aspects of the current dynamics of modern agriculture. The panel also discusses alternatives for mainstream modern agriculture, such as agroecology and natural farming. From a critical agrarian studies perspective such alternatives have been criticized for their politics of being traditionalist and populist. To what extent can political ecology theory (with strong roots in political economy) and such alternatives for modern agriculture be seen as good companions to broaden and deepen the study and practice of agrarian change?

### **From Land to Soil: Agrarian crisis and the affective ecologies of natural farming (South India)**

*Daniel Münster, Heidelberg University*

My paper is located at the theoretical intersection of the realist tradition of political ecology scholarship (with its moorings in political economy) on the roots of agrarian crisis and literatures working towards a relational, more-than-human, or dialectical (J. Moore) approach to agriculture. Thinking through the political ecology and political economy of a regional agrarian crisis among cash-crop smallholders in the Western Ghats of Kerala (South India), I will argue that political ecology perspective has a lot to contribute to the analysis of crisis, debt traps, pesticide treadmills, and exits from agriculture. In order to appreciate the instances of hope embodied in natural farming, however, we need to move beyond political economy and acknowledge the affective ecologies of farming as a relational practice. I particularly highlight ontological politics (McMichael) in the alternative agronomies of natural farming, a politics that entails a new appreciation of the microscopic and invisible



worlds of soils, microbes and roots and of the human non-human relatedness in agriculture. Presenting the case of the Zero Budget Natural Farming movement I will argue for taking the ecology in political ecology and to reconsider capitalist agriculture as relational and embedded in the "web of life" (Moore).

### **Is oil palm expansion a challenge to agroecology? Smallholders practising industrial farming in Mexico**

*Antonio Castellanos-Navarrete and Kees Jansen*

Agroecology has become a powerful alternative paradigm for agrarian development. However, this approach, which promotes peasant-based farming as an alternative to industrial agriculture, fails to explain why smallholders themselves shift to industrial production systems. This paper analyses the marked expansion of oil palm in Chiapas, Mexico, and the participation of smallholders in this process. Contrary to agroecological assumptions, smallholder participation in Chiapas did not mean a shift from tradition to modernity or from self-sufficiency to exploitation as those who made the shift were already linked to commodity markets, either by selling crops or their own labour, with only a few living from local food production. Smallholders opted to participate in oil palm production because of the favourable conditions offered by the state and the advantageous economic circumstances within the oil palm sector. The form of industrial agriculture underpinning oil palm production also fits well with peasant subjectivities, as modernization is a popular ideology among smallholders in the study regions. Taking a political ecology perspective, we discuss four challenges that agroecology has to solve if it wants to realize viable alternatives for smallholders in a context of agro-industrialization.

### **A Political Ecology of Genetically Modified Soybeans in South America**

*Pablo Lapegna, University of Georgia (Athens, GA, USA)*

Political ecology has studied how social processes affect the environment –particularly, the ecological impacts of capitalist relationships or the capitalist production of nature. In this paper, I engage the burgeoning literature that inspects the society/environment interface while paying closer attention to ways in which ecological dynamics influence political economy. Building on theories that take non-human agency seriously (e.g. symmetrical anthropology), I analyse the expansion of genetically modified (GM), herbicide-resistant soybeans in South America. Specifically, I inspect four ecological/social interfaces. First, I analyse the implications of the re-use of GM soybean seeds. Unlike hybrid seeds, GM soybean seeds can be re-planted without losing productivity. This natural characteristic challenges the intellectual property rights of corporations. Second, I show how farmers and agribusiness associations in Paraguay and Brazil have used the presence of GM soybean plants (grown with seeds smuggled from Argentina) to put pressure on their governments and obtain legal approval of GM seeds. Third, the intense use of the herbicide glyphosate

prompted the appearance of herbicide-resistant weeds. The actions of these weeds have stimulated the use of more toxic herbicides (e.g. 2.4D). This, in turn, has pressured biotechnology companies to develop new GM seeds (for instance, GM soybeans that resist both glyphosate and 2.4D). Fourth, the action of fungi, bacteria, and insects imposes limits to the storage of harvested soybeans. This stimulated farmers to develop creative solutions, namely, the use of “silo-bags” (large bags of up to 100 meters in length). Silo-bags allow withholding the selling of soybeans, a key export commodity. Argentine farmers and agribusinesses have used this as a tool to impact the balance of trade and influence national economic policies. The ultimate goal of the paper is to shed light on the contributions that political ecology can make to better understand the political economy of agricultural biotechnology.

### **Towards a Political Ecology of Modern Agrarian Capitalism: What concepts do we need?**

*Kees Jansen and Antonio Castellanos-Navarrete*

The image of a small, poor and marginalized natural resource user who confronts, suffers from, and resists the expansion drift of an external capitalist other is more or less present in many political ecology studies dealing with agriculture. Alternatives are sought in agroecology and food sovereignty. This paper critically discusses that image in comparison to a different analysis of contemporary agriculture. We argue for opening up theoretical space to acknowledge forms of bottom-up capitalism, in which smallholders desire to participate in trajectories of economic growth and globalized commodity chains and where social struggles are about the terms of incorporation. Through this comparison of two different images we aim to identify a set core concepts that we think are crucial for a political ecology theory of modern agrarian capitalism. Throughout the paper we will illustrate several ideas with elements from the pesticide debate. We also discuss how the different images may imply different, maybe even opposed, politics.

### **Political ecology and the agrarian question: foundations of ecological materialism**

*A. Haroon Akram-Lodhi, Trent University, Canada*

Contemporary analysis of the political economy of global farming adopts a perspective on the agrarian question: “whether, and how, capital is seizing hold of agriculture, revolutionising it, making old forms of production and property untenable and creating the necessity for new ones” (Kautsky 1988). Political ecology situates these economic, social and political processes within the environment within which an agrarian question is situated. This paper will draw upon Marx to adopt a different approach, which does not distinguish between the two, because as Jason Moore has convincingly demonstrated capitalism produces and is produced by nature. Thus, what contemporary political economy understands as the agrarian question should be approached as being about the historically-

constituted and contemporarily-realised terms and conditions governing the ways in which capital, which is transformed by nature in rural areas, in turn transforms nature in rural areas, in order to extract the unpaid ecological and human surpluses that feed capitalist development.

## **5: The ‘layeredness’ of resource conflicts: exploring what is ‘hidden’ underneath struggles for access and control**

Convenor: Angela Kronenburg García, African Studies Centre Leiden

Environmental or natural resource conflicts have long been a major focus of political ecology. Political ecologists have convincingly shown that conflicts over resources such as forests, pastures or agricultural land typically arise when new claims are made or changes at the human-environmental interface take place (conservation efforts, enclosure of common land, degradation, extraction, etc.) that affect people’s use, access and control over natural resources. Resource conflicts are therefore best seen as political processes as they involve contradicting shifts in the distribution of access and control over resources. These insights are very valuable and have produced sophisticated studies, yet in some cases resource conflicts may not only be about struggles for access and control. In fact, conflicts about natural resources are often layered and composed of various struggles at once that might be ‘hidden’ (Nijenhuis 2003) or ‘masked’ (Peluso & Watts 2001) by the more apparent performance of the struggle for access and control. Uncovering them thus requires long-term and in-depth research, especially because those involved might not be keen on having them disclosed (Turner 2004). Without dismissing the existence and validity of the access and control struggle, this panel aims to explore the ‘layeredness’ of resource conflicts and what this means for the political ecology of such conflicts. It brings together cases from Africa that show how these ‘hidden’ struggles can actually turn out to be of crucial importance for explaining the course, outcome, and possibly even the cause, of resource conflicts. The papers presented are the result of long-term ethnographic research conducted in Kenya and in Mali.

### **The performativity of multiple conflicts over grassland in Kenya’s conservation landscapes**

*Annemiek Pas Schrijver (Stockholm University) & Arjaan Pellis (Wageningen University)*

Scarce yet fertile grasslands attract a multitude of interests and actors in Kenya’s Arid and Semi-Arid Landscapes (ASALs) for organized ranging, migratory grazing of cattle or wildlife, and exclusive tourism. Such scarcity becomes ever more pressing in light of increased drought periods in the North of Kenya. In absence of centralized governmental control, various conservation landscapes have tried to arrange multiple claims upon grassland by means of overlapping systems of rule that in fact make struggle over grassland complex. By exploring the multi-layeredness of emerging conflicts over access to available grassland, this paper draws upon multidisciplinary research performed on the role of novel tourism enclosures, conservation zonations, and pastoral or commercial cattle herding, and elaborates on recurrent modes of conflict. We observe conflicts as processes of performed contradictions that endure as modes of ordering amidst other modes of ordering. We argue

that shifting conflicts depend on heterogeneous networks of actors, objects and social reorder arrangements initiated across different spatial scales by Conservation NGOs, private enterprises, and a wide variety of competing herders. Our analysis is based on anthropological fieldwork carried out between February and December 2015 focusing on cattle migrations throughout the counties of Samburu, Isiolo and Laikipia, and follows up on previous tourism governance studies carried out in between 2010 and 2014 across overlapping counties in Laikipia and Samburu. Our discussion of the performative and shifting role of conflicts is illustrated in light of the Koija Starbeds Lodge that experiences a dynamic of conflicts that challenges existing private-community partnerships, especially in light of recent migrations and political unrest in the region. We discuss how multiple modes of conflict in places like Koija co-exist in relation to a politics of scale revealing wider and interdependent political action in motion.

### **Hidden Scripts of Conflict: Depoliticization in the Quest for Mt. Kenya's World Heritage Status**

*Marlous van den Akker (Institute of Cultural Anthropology and Development Sociology, Leiden University)*

In 1997 Mt. Kenya entered the UNESCO World Heritage List as one of East Africa's most exceptional mountain landscapes. The listing was founded on, and exclusively formulated in, natural scientific language: among others things, the area was revered for its glacier-clad summits, its Afro-alpine moorlands, its diverse forests, and its variety of outstanding ecological processes (UNESCO 1997: 38). In part, UNESCO's rhetoric echoes the beauty and peculiarity of Mt. Kenya's surroundings. Yet, at the same time, it works to cover up a range of conditions that helped shaping the World Heritage nomination and designation process. Most importantly, this rhetoric obscures that Mt. Kenya's World Heritage listing developed against a much longer history of conflict between two government institutes that have been fighting one another over the right to supervise Mt. Kenya roughly since the late 1980s. One of these institutes initiated the World Heritage nomination procedure with the specific intention to outsmart its competitor and nullify the other's management authority – the architects of Mt. Kenya World Heritage Site deliberately tapped into UNESCO's scientific idiom, which presents heritage conservation as a purely technical affair in the hands of trained professionals, and in doing so 'depoliticized' (Ferguson 1990; Li 2007) the entire undertaking. Reflecting on these matters, this presentation approaches the act of consciously concealing historical layers, or staging specific events as secluded, context-free, and out-of-time, as a (potentially quite effective) political strategy. The work is based on eleven months of fieldwork carried out between 2011 and 2012, which were spent on the slopes of Mt. Kenya and in the offices of involved organizations and stakeholders.

## **Exploring the ‘layeredness’ of recurring natural resource conflicts: the role of Loita Maasai leadership in the Naimina Enkiyio Forest conflicts**

*Angela Kronenburg García* African Studies Centre Leiden

Recurring conflicts over access and control of natural resources may pose particular challenges for researchers wanting to understand them. This is especially the case when explanations that may seem valid for one conflict do not hold when the conflict is studied in relation to other preceding and/or succeeding conflicts over the same resource (Fortmann 1990). This paper offers an analysis of two successive forest conflicts in Kenya that pose such a challenge, because the first of these conflicts has led to a well-established interpretation that does not hold when the second conflict is taken into consideration. The first forest conflict erupted in 1993 when the local authority (Narok County Council) wanted to gazette the Naimina Enkiyio Forest for nature conservation and tourism development, triggering widespread opposition from the Loita Maasai, who consider the forest to be theirs. The second conflict (2004-2005), closely related to the first one and ending violently, stems from local resistance to a community-based forest management project carried out by environmental organization IUCN (International Union for the Conservation of Nature). By exploring the ‘layeredness’ of this recurring natural resource conflict, this paper will show how a particular layer that was overlooked in the various scholarly analyses of the first conflict, namely longstanding tensions within the leadership of the Loita Maasai, turns out to be key for providing a consistent understanding of the course and outcome of the two conflicts when studied in relation to each other. This paper is based on anthropological research of more than 22 months of fieldwork conducted between 2001 and 2010 in Loita Division, Kenya.

## **Change as commodity: Rethinking Tanzania’s REDD+ process**

*Jens Friis Lund (University of Copenhagen, Denmark), Eliezeri Sungusia, Mathew Bukhi  
Mabele and Andreas Scheba*

REDD+ is an ambition to reduce carbon emissions from deforestation and forest degradation in the Global South that has generated unprecedented commitment of political support and financial funds for the forest-development sector. Within academia and among people-centered advocacy organizations, REDD+ has been conceptualized as ‘green grabbing’ and generated fears of a pending global rush for land and trees. In this paper we argue that, in practice and up until now, REDD+ is as much about accessing global finances for development as it is about changing the political economy of forestry. Thus, we propose to re-conceptualize REDD+ also as a development policy model in the context of a broader political economy of development where the promise of change is a discursive resource that is constantly reproduced and always up for grabs. We derive this argument from a study that compares the emergence of REDD+ in Tanzania with that of a previous forest-policy model called Participatory Forest Management. Our study describes the repetitiveness between

the two policy epochs in terms of the initial promises and expectations that led to substantial donor financing, pilot project activities, and policy development and implementation processes that have achieved little in terms of changing actual forest management and use on the ground, but have sustained the livelihoods of a group of development and environment professionals, including academics. It is in contrasting the lack of change in the forests of Tanzania with the repetition of promises of change that we build our argument that REDD+, at least in this case, resembles development policy more than a pending green grab. Given that there are still many who look to REDD+ in the hope of addressing global climate change, despite less than hoped for financial support at the global level, our study provides an important starting point for questioning the uses of the finances for REDD+ that are actually amassed.

## **6: Contestation and Violence against Market Sequestration in (Post-) Conflict Countries**

Convenor Anne Hennings, University of Muenster, Germany

(Post-) conflict countries increasingly attract corporations to invest in commercial agriculture, conservation or mining projects. This being said access and control over land, forests, water and other resources are highly contested and remain key elements to building peace and reconciliation. Although increasingly contested the dynamics surrounding shifting access to and control over the environment in vulnerable conflict-affected societies are so far less understood. A multitude of actors from national governments, NGOs, international organizations and financial institutions, to local elites and communities is involved in shaping post-war reconstruction and, thus, influencing local land use practices. The panel pays special attention to resistance and the struggle over “legitimate” access, control and use of the environment and respective post-conflict in- and exclusion dynamics. Thereby, it explores actor constellations, power asymmetries, historic trajectories of structural inequality and means of (violent) contestation by looking at land commodification and conservation practices. Accordingly, we scrutinize various forms of resistance, such as everyday, official or advocacy politics, as well as violent measures and their implications for conflict transformation. Moreover, the panel takes respective (security) discourses into account that may be (mis)used in terms of legitimizing state territorialization and sequestration. The panel brings together a variety of theoretical (i.e. post-structuralist, discourse analysis, ANT) and empirical contributions concerning these land use changes and the way they are contested in post-conflict settings.

### **Contested Land Deals: What Implications for Conflict Transformation and Peace in Cambodia?**

*Anne Hennings, University of Muenster*

Post-conflict countries are under increasing pressure in terms of reconstruction and a swift integration into the global market. Thereby, international organizations, donor agencies and the private sector alike push the neoliberal paradigm that promises economic prosperity, i.e. through foreign direct investments. This gave rise to a number of large-scale land and resource acquisitions in post-war contexts in African and Asian countries, recently. However, it has turned out that these investments may pose unpredictable threats to war-torn societies that are particularly vulnerable to abrupt land use changes. Yet largely underexplored, this paper takes the interplay between commercial land deals, (anew) displacement, violence and resistance in post-conflict Cambodia from a post-structuralist perspective critically into account. Ever since, land and forests have been inherent part of the Cambodian culture and, moreover, played a key role during the civil war and the re-ruralization under the Khmer Rouge regime. Accordingly, this paper places special emphasis



on (violent) contestation dynamics against state territorialization through land commodification in post-war Cambodia. Based on empirical findings from my current field research on affected communities in the northern provinces, I explore implications for domestic peace dynamics and contemporary (un)peaceful post-conflict relations. Using ethnographic methods has enabled insights into overt as well as everyday resistance strategies, its socio-political impact and the role of gender. First findings reveal exacerbated community-state tensions deriving from unjust land acquisitions and its negative impact on reconciliation, justice and long-term peace prospects.

### **A political ecology perspective on the analysis of large-scale land deals in post-conflict countries**

*Annette Schramm, University of Tuebingen*

This conceptual paper explores national and international peacebuilding policies as potential drivers for large-scale land deals in post-conflict countries through a political ecology lens. Conflict affected countries, such as the DRC, South Sudan or Sierra Leone, are among the top “target” countries for large-scale land deals, which are often referred to as land grabbing as they transfer the control over land to international companies. These land deals often entail a transformation from small-scale farming to big export-driven industrial production of agricultural products and have triggered considerable contestation. Yet, the peacebuilding literature remains largely ignorant about large-scale land deals and agrarian issues more generally. Consequently, the question if and how peacebuilding policies actually drive large-scale land deals has not been addressed so far. The paper suggests filling this gap by drawing on research from agrarian studies and political ecology. An analytical framework for contested land sequestration in post-conflict countries is developed using three interrelated dimensions: A legal dimension focusing on land rights, an agrarian dimension zooming in on land use and its political economic context, and a social dimension looking at the socially constructed meaning of land. Through the analysis of these three dimensions over time, continuities and changes before, during and after a civil war become visible and illuminate current cases of large-scale land deals. It will be argued that peacebuilding policies are often preoccupied with a legal perspective on agriculture neglecting the agrarian and social dimensions. In this way structural inequalities, unequal access to and use of land, and ultimately large-scale land deals are enabled or reinforced.

### **“They turn us into criminals: encountering land grabs as entanglements of fear”**

*Laura Schoenberger (York University) and Alice Beban (Cornell University)*

Our attempts to research the land grab were thwarted on a number of fronts. This paper argues that this was due to the work that land grabs do, and that in these failures we found new epistemological and methodological insights. Our academic (dissertation) and applied (NGO-based) research in Cambodia, a country known for violent evictions and plantation-

fuelled dispossession, reveals the land grab as a high stakes landscape where murky networks of actors draw power from obfuscation and threat, effecting a systemic violence that marks both research and researcher. Much recent literature on 'land grabbing' focuses on acts of physical violence such as forced evictions, but for people who live near spaces of land conflict, we argue that everyday life is marked by a different kind of violence; an incoherence and pervasive fear that threatens people's sense of self and the entire social fabric of their worlds. The methodological toolkits of agrarian and livelihood studies are limited in this context because the researcher – as with our research participants – is under surveillance, field access is in flux, powerful actors remain in the shadows, and participants' fear of speaking out makes this violence difficult to grasp through words and narratives. This raises important epistemological and methodological questions of what is knowable in this space, and what kinds of research it is even ethical to pursue. Our contribution to the growing literature on land grabs is to argue for more attention to the feeling and embodiment of everyday encounters. This reveals the violence that works through bodies, across space, forecloses futures, and implicates the researcher within this system. This methodological intervention asks that the researcher feel how charged these social worlds and landscapes are, to live in the tension, uncertainty, rumor, and murkiness and to allow ourselves to be unsettled as a way of building a deeper understanding of what land grabs do.

### **Stranger danger: Artisanal and industrial mining as drivers of violence in post-conflict states**

*Nina Engwicht (University of Landau/ Peace Academy Rhineland-Palatinate, Germany)*

Scholarly and policy-oriented research has long identified artisanal mining of valuable natural resources as a risk factor that can motivate and enable inner-state violence. Often largely unregulated or informally regulated artisanal mining is said to attract violence-prone populations and to result in unregulated cash flows that can be used by non-state armed or criminal actors to further their agendas. On this account, donors that aim to promote peacebuilding and economic growth support the development of large-scale mining projects that are often implemented by international corporations. Presently dominant statebuilding practices strive to concentrate mining activities in big projects that the state is supposedly better able to monitor, regulate and tax than individualized artisanal mining. Based on extensive field research on the Sierra-Leonean diamond market this paper questions this narrative. It shows that the notoriously conflict-prone artisanal diamond sector in post-conflict Sierra Leone, while still not under state-control, is surprisingly non-violent. In contrast, the industrial mining sector – which is tremendously supported by international donors – has been one of the single biggest sources of mining-related violence in post-conflict Sierra Leone. The proposed paper will examine the impact that artisanal and industrial mining have on human security and livelihood quality in mining community. In particular, it will investigate the sources of contestation and legitimacy of mining projects by the populations that are most affected by it.

## **Prospects of transforming a war economy: the relevance of land-use governance for the conflict and peace process in Colombia**

*Linda Wallbott, Markus Lederer (University of Muenster, Germany)*

Literature from Peace and Conflict studies has traditionally emphasized the negative effects of war economies surrounding the extraction and management of natural resources for initiating, triggering or prolonging violent conflict. On the other hand, the contributions of natural resource governance to conflict resolution and peacebuilding have received considerable less attention in academia and politics to date. Hence the question prevails which mechanisms might facilitate non-violent forms of cooperation during phases of transition. Particularly, new insights could be expected from assessing the relative relevance of greed-, grievance- or recognition-based approaches in this context. With the aim to contribute to this research agenda we will, in this paper, first, develop an analytical framework to capture such possible mechanisms and to make them comparable across cases. This will, second, be followed by a case study on Colombia, the analysis of the country's conflict and the most recent peace negotiations between the government and the rebels of the FARC, and the role of natural resources, particularly land-use, herein.

## **7: Environments of Repression: New (and old) forms of state violence in Latin American Extractivism**

Convenors: Karolien van Teijlingen, CEDLA/Amsterdam Institute of Social Science Research

Current day extractivism in Latin America is characterized by the prominence of the State in promoting and facilitating the extractive industries on the one hand, and a rise of social conflict on the other. In the context of mineral mining conflicts, this renewed role of the State has been marked by a relentless repression of opposing local communities and defenders of human rights and the environment. This repression has taken on the form of direct violence, murder or criminalisation. In some cases, this exertion of state power through armed forces is reminiscent of the anti-terrorism responses unfortunately common in many Latin American countries in the 70s-90s. However, today's repressive environments go hand in hand with more sophisticated forms of power and violence that could be casted as systemic or epistemic violence. These include but are not limited to the design of excluding of 'participatory' mechanisms, the strategic use of information and knowledge, discourses that disqualify (often indigenous) protestors as second-hand citizens and the discursive indoctrination through imaginaries of development and progress that aim to brush away objections and convince audiences of the benefits of extractive projects.

In this panel, we wish to address the political ecology of conflict, contestation and extractivism in these new Latin American environments of state repression. We seek to highlight the diverse forms of state violence and drivers of conflict particularly as these relate to the ways in which large-scale mining reconfigures territories, waterscapes and the enjoyment of rights. And on a second front, we want to take a closer look at how social movements are finding the ways -or not- to respond to the repression, given that their space for action is increasingly being pushed back and shut down by the State.

### **Questioning the effectiveness of planned conflict resolution strategies in water disputes between rural communities and mining companies in Peru**

*Milagros Sosa, Wageningen University*

Disputes between mining companies and surrounding communities over the access to, control and distribution of water form an important part of the socio- environmental conflicts that large mining operations in Peru are producing. In order to mitigate environmental impacts, solve conflicts and deal with opposition to mining operations, governmental actors and mining companies make use of a combination of legal and technical strategies. In this paper we question the effectiveness of these strategies, focusing in particular on the longer-term sustainability of water resources, water-based ecosystems and livelihoods. Based on research carried out in the surroundings of the Yanacocha gold mine in Cajamarca, we show that although legal and technical conflict-resolution strategies

are effective in temporarily diffusing tensions, they do not address the underlying political causes of conflicts. Instead of these seemingly objective, neutral and quick solutions, our analysis suggests that solving environmental conflicts around large-scale mining operations requires explicitly admitting and dealing with the fact that these conflicts are always inherently political, situated, complex and power-laden.

### **The ‘extractive imperative’, territorial conflict and power plays around large-scale mining in the Ecuadorian Amazon**

*Karolien van Teijlingen, CEDLA/Amsterdam Institute of Social Science Research*

Large-scale mineral mining accounts for a considerable share of the recent trend towards neo-extractivism in Latin America, causing the so-called mining frontier to increasingly move into environments that, although known for substantial mineral reserves, have remained untouched by the large-scale mining industry. Here, the territorial logics of large-scale mineral mining superimposes the existing, complex territorial dynamics of agro-pastoral and indigenous communities, resulting in an up-swing of conflicts around mining operations. Seen from a political ecologist perspective, such territorial struggles are embedded in (unequal) power relations that structure the interactions over competing territorial claims. In this paper, I present work in progress on the territorial power struggles around the first large-scale mining project of Ecuador, the Mirador copper mine in the country’s Amazon region. On the one hand, my case-study shows how the Ecuadorian national government and the company operating the mine have forged an ‘extractive imperative’ – a set of regulations, practices and discourses – to push for the Mirador mine and related territorial reconfigurations. Particular attention will be paid to the diverse and increasingly violent power mechanisms employed by the national government in order to enforce and legitimize territorial reconfigurations. On the other hand, I will analyse the array of responses from local communities, including the discourses and strategies local indigenous and peasant groups use to go against the ‘extractive imperative’ and claim their territory. Through this analysis, I aim to grasp the power plays behind the current-day encroachment of large-scale mining in a context of territorial pluralism and enhance our understanding of the role of the State in this realm.

### **Violence at the mining frontier: the case of Honduras**

*Nick Middeldorp, Independent consultant*

This paper documents opposition to mining in Honduras, at the verge of an attempted ‘mining boom’ since the approval of a new mining law in April 2013. It analyses how a broad movement – involving NGOs, social movements and local communities - engages in opposition to the extractive industry, which is declared national development priority by the Honduran government. The movement emerged in the first decade of the 21st century as a response to the establishment of two industrial mines, and frames access to

uncontaminated water as a requisite for livelihood and life – a frame which draws heavily upon the negative impact of Goldcorp's open-pit operation in Valle de Siria, Honduras, where serious health problems have been registered. We argue that this resonates strongly with rural communities as they depend on access to water for the continuation of their livelihoods. In contrast, the extractive industry and the central government are far less successful in convincing local populations of the potential benefits of mining. As political opportunities for dialogue with the central government are lacking since the 2009 coup d'état, the anti-mining movement increasingly seeks opportunities at the local level, motivating communities to declare their municipality free of mining via public referendums. In turn, where legal means to gain communities' consent for mining projects fail, the 'extractive frontier' is frequently pushed by criminalization and the threat of violence. This raises concerns about the effectiveness of international mining standards; the functioning of the Honduran state; ties between state actors and organized crime; and the human rights and lives of those engaged in the 'defense of life'.

### **Master Plan for the Exploitation of the Magdalena River, Colombia: in between extractivism and defence of territories**

*Tatiana Roa Avendaño, Censat Agua Viva - Friends of the Earth (Colombia)*

This study aims to outline international geopolitics that have influenced national policies and have led to the endorsement of the *Master Plan for the Exploitation of the Magdalena River*, as well as the resulting territorial conflicts in the region. The River Magdalena is considered as the most developed river-basin in Colombia; 1-6 development concessions have been granted during the 2004 - 2013 period alone.

The Master Plan is product of an international partnership between the Cormagdalena regional authority - Colombia, the Presidential Agency for International Cooperation (APC - Colombia), the People's Republic of China and the Hydrochina Corporation in 2011. The plan involves the exploitation of conservation and recreation areas located upstream of the Isnos municipality (department of Huila), and includes a wide range of projects such as river navigation, hydroelectric dams, fishing and reforestation for the mid and upper divisions of the river-basin. Whilst for the lower river-basin it recommends projects of navigation, flood-control, recreation, fishing and reforestation. In general, the Master Plan is conceived as an economic strategy to open-up fluvial transportation of merchandise and energy generation in the River Magdalena and tributary rivers, with the objective to satisfy industrialised countries demands and commitments made in Free-Trade agreements.

Based on an analysis of ecological distribution conflicts, a review of literature studies and press reports, as well as field visits and community interviews, this investigation highlights the distinct areas of conflict which this Master Plan is causing in the Magdalena Medio region, particularly as a result of navigation projects and associated work-plans. It is evident

that territorial transformation is creating “industrialised landscapes”, instigating changes in traditional community livelihoods and provoking disputes between the river-peoples, business corporations and contractors which are locating to the area.

### **Resource extraction and the right to protest: Contentious politics in Intag, Ecuador**

*Emily Billo, Goucher College*

On April 11, 2014, Javier Ramírez, president of the *campesino* community of Junín, located in Intag, Ecuador was arrested. The state accused Ramírez of harming national mining company employees who were beginning copper mining explorations in the region. Residents of Junín have protested mining projects for more than twenty years, sometimes preventing the entrance of private companies into the region. Following the election of President Correa in 2007, Ecuador embraced post-neoliberal policies that placed the rights of impacted communities and nature ahead of access to resources. However, by 2009 the passage of a new mining law allowed the state to capture a greater proportion of rents from mining, legitimizing the social and environmental impacts of the industry through social programs and infrastructural improvements. Moreover, the law effectively criminalized any disruption that would prevent extraction. While the Ecuadorian state claims that resource extraction is for the ‘good of the nation,’ residents in Junín continue to claim their right—however fraught—to protest social and environmental harms. This paper considers how criminalizing environmental protests serves as a violent political strategy of the post-neoliberal Ecuadorian state. Employing an institutional ethnography, it explores the everyday social relationships of criminalization articulated through discourses, practices, and performances of subjects in the space of Intag.

### **The extractivist complex: development or disaster**

*Carlos Morales Carbonell, Wageningen University*

The expansion of the extractivist complex in Honduras has produced an increasing resistance from the people. A confrontation between social movements and local communities, and mining corporations and governmental sectors that support it as a key development axis. This paper explores this confrontation and particularly the way that extractivism, proposed as a main strategy for sustainable and fair development, is constructed as a prominent risk of disaster in the wide mobilization of multiple and plural sectors. This is an approach to mining exploitation as a matter of Disaster Risk Management which is itself controversial since institutional approaches of disaster risk construct disaster risk as the consequence of mainly external natural hazards, leaving issues derived from development models untouched. Counter-movement is not limited to discourses but relays increasingly in repression. Disaster risk management becomes criminalized. Something completely unexpected in institutional frameworks like the International Strategy of Disaster Reduction

and the Frameworks of Action of Hyogo and Senday.

**On Criminalization of dissent, and new economies of conflict and violence An exploratory political ecology of violence rooted in conflicts around the Las Bambas and Conga mining projects in Peru**

*Raphael Hoetmer, Democracia Global*

My paper explores new forms of political violence and economies of conflict related to the expansion of extractivism in Peru. My reflections will be rooted in the processes of conflict around the two biggest investments in mining in the history of the country: the Conga project in northern Cajamarca and the Las Bambas project in Apurimac. Both cases have seen a substantial amount of protest, social conflict and violence, although Las Bambas represents a conflict of coexistence, whilst in Cajamarca the local populations reject the project.

Extractivism should be understood as a biopolitical project that aims to discipline individual and collective life, as well as nature according to colonial, capitalist and patriarchal paradigms. My paper explores both the production and control of new ways of life (through the case of the resettlement of the Fuerabamba community in Apurimac), as the attempts to destroy “other ways of living” that refuse to be disciplined (through the case of the *Guardianes de las lagunas* and particularly the Chaupe family in Cajamarca).

Afterwards I’ll analyse two phenomenons of political violence that are increasingly present in mining conflicts in Peru. Firstly, I’ll argue that the multiple articulated disciplinary mechanisms that criminalize dissent (more than protest), actually seek to eliminate both the capacity of collective decision making outside of the state and company procedures, as other ways of relating humanity and nature. On the other hand, I’ll state that the territorial transformations generated by mega projects of mining promote a societal model based on conflict and the use of force, even in the cases of coexistence (as in Apurimac), generating conflicts of conflict and violence.

**Small scale mining and the transformation of waterscapes in the Peruvian Amazon**

*Gerardo Damonte (Univ Catol Peru) and Gisselle Vila*

The anthropogenic influence over the transformations of waterscapes is increasingly addressed by research through political ecology lenses (Abizaid, 2006). The focus has been on hydropower megaprojects and their influences over territorial planning, its social and environmental impacts (Fearnside, 2015, 2011, 2006), and the resources used by civil society and the State to address these developments (Kahn et al, 2014; Marzec, 2014; Millikan, 2012). In Peru, the research has also highlighted socio-environmental conflicts facing extractive industries’ activities (Gamboa, 2014; Villacrez, 2012; Durand, 2011; Postigo y



Montoya, 2009).

Nevertheless, other activities in the Amazon basin have remained unexplored, in particular, artisanal and small-scale gold mining. Although analysis of ASM in the Amazon basin has gained relevance over the years (Damonte et al, 2013, Valencia 2014) and there is strong awareness of the activities' impacts over water bodies and people –because ASM in the Amazon strictly develops in placer deposits, little attention has been given to the creation of waterscapes. We develop a case study to review the waterscape creation process of the Madre de Dios River in the Peruvian Amazon. We propose that the hydrophysical configurations are the result of socioeconomic and political contestations over gold. To fulfill this goal, we conduct a qualitative analysis to reconstruct the history of the transformations of the river, using maps, legal & policy frameworks, interviews and archives. The findings will assess the extent of the waterscape and hydrosocial concepts to explain the interwoven social and physical dimensions of resource use.

## **8: The Political Ecology of Economic and Natural Resources in Mexico: Understanding People's Efforts to Curtail Poverty, Pollution and Scarcity**

Convenor: Maria L. Cruz-Torres, Arizona State University

An array of environmental, social, and economic processes currently shape the distribution of resources in Mexico. Understanding the manner in which these processes are influenced by other variables could shed light into their unequal impact upon various sectors of the population. Issues of gender and class are crucial for explaining who gets the most access to resources and why. Research in Political Ecology has also shown that the power dynamics that mediate the allocation of resources is crucial for understanding the struggles over access and control to resources, and that these in turn are also shaped by class and gender. An analysis of this dynamic relationship could provide a more inclusive and appropriate explanation of the causes of poverty and vulnerability, and the many formal and informal strategies that rural households and communities devise in order to secure decent livelihoods and guarantee their well-being. This panel brings together a group of scholars working with various issues of resource allocation in Western Mexico. It seeks to explain the manner in which urban and rural households gain access and utilize basic resources in their daily lives. A main goal of the panel is to provide critical insights to the struggles, conflicts, resistance, and negotiations that people engage in as they build a path towards a more sustainable way of life. Topics addressed in this panel include the health effects of air and water pollution; community's strategies to deal with water scarcity and safe drinking water; the impact of climate change on local food systems and food security; and issues of gender, resistance, and social justice in Mexican fisheries, among others.

### **Access to Food in Times of Economic and Environmental Crisis**

*Magdalena Villarreal, Center for Advanced Research in Social Anthropology (CIESAS),  
Guadalajara, Mexico*

Based on two studies in three different regions of western Mexico, I will discuss how low income households manage and reproduce particular food systems despite obstacles such as climate change, monopolization of basic products by multinational companies, political usage of government aid and difficulties of access. I show how such systems are largely sustained by social relations and the upkeep of networks, but also by resorting to innovative production and consumption strategies. The studies upon which this paper is based include both qualitative and quantitative research, exploring the situation of diverse households in both urban and rural settings. I will discuss three cases that show how these food systems operate, the constraints they face, and the ways in which they resort to 'external' support. It is important to note that there are differences within households with regards to access to resources, and also to food. Such differences are very relevant to our discussion, revealing, as they do, power relations and uneven mechanics mobilizing food systems.

## **River Restoration and Local Responses to Water Pollution in Jalisco, Mexico**

*Jonatan Godinez Madrigal (University of Delft and UNESCO-IHE) & Joshua Greene  
(Wageningen University)*

In her examination of the inability of national regulatory authorities to control increasing water pollution, researcher Cindy McCulligh (forthcoming) has termed it "The sewage of progress." The state of Jalisco, located in Central-Western Mexico, exemplifies this trend. Regional stability is put at risk as unplanned urban expansion, industrial development and lack of functioning water treatment continually leaves less water available for use. According to the state water commission less than 15 percent of the water treatment plants are functioning as designed. There are a number of political and economic reasons to explain the inability of these facilities to operate as intended. Yet, the government and civil society have been given very few options, but to continue investing and building bigger and more expensive solutions.

In 2014, researchers from Wageningen University, UNESCO-IHE/Delft and several research institutes in Jalisco, Mexico developed an "alternative water treatment" project with the aim of innovating new, low cost, low maintenance water treatment techniques to begin to tackle this issue. The project is based on concepts of "peasant laboratories," "territorial cooperation," and "Notions on learning applied to wind turbine development in the Netherlands and Denmark." Community groups have begun to experiment with personal forms of water filtration in order to secure safe drinking water for their families. At the heart of this project is: (1) the formation of water clubs on the banks of a single highly contaminated river; (2) experimentation with known water filtration techniques such as slow sand filtration and phytoremediation and the utilization of locally produced materials such as ceramics; and (3) the sharing of obstacles and successes between communities.

## **The Environmental Health of Vulnerable Communities: The Political Ecology of Industrial Urban Pollution in Mexico**

*Gerardo Bernache, (CIESAS) & Georgina Vega (CIESAS)*

This presentation discusses two cases of industrial urban pollution in Guadalajara, Mexico. It focuses on two very vulnerable communities characterized by extreme poverty, social marginalization, and political and economic subordination. These communities also face environmental degradation as a result of industrial waste, poor air quality, and emissions from landfills. Living in a highly polluted environment has deteriorated the health of the people in these communities, and an array of economic, social, and political issues now influence the degree in which these are able to cope with illnesses, access to healthcare, rehabilitation and recovery. Industrial urban pollution not only stems from urban sprawl, but particularly from the impunity enjoyed by many of the polluting industries and the local government's discharge of untreated wastewater. These actions are supported by neoliberal

policies that give priority to capital and industries at the expense of the overall well being of the communities. People have little choice than to continue living for years or decades in these heavily polluted communities, and for most, poor health and pollution are two permanent elements in their daily lives. This presentation will address the manner in which local authorities deal with urban pollution and its impact upon the long-term health of the local population. The findings of this study shed light into the manner in which local environmental policies contribute to increase vulnerability and its implications for human rights.

### **The Political Ecology of Gender, Fisheries, and Inequality in the Mexican Shrimp Industry**

*María L. Cruz-Torres, Arizona State University*

Framed within a Feminist Political Ecology Perspective this paper examines the various roles and contributions of women within Mexican fisheries. Drawing from long-term anthropological fieldwork in Northwestern Mexico I discuss how Mexican fisheries policies have traditionally excluded a sector of the population in fishing communities, and the creative responses of people seeking access to the use and exploitation of shrimp resources. I focus on the lived experiences of a group of women in Southern Sinaloa, known as *Changueras*, their seafood trading activities, their criminalization by the state, their everyday forms of resistance, and social justice. I argue that because gender policies are not gender neutral, special efforts should be undertaken to recognize and acknowledge women's experiences and their potential contribution to the management and conservation of fisheries systems. Lastly, I suggest that a gender-centered approach and a better understanding of women's roles in fishing communities could lead to more sustainable framework for fisheries governance.

### **The political ecology of ecosystems-based adaptation in Mexico**

*Andrew Newsham, SOAS, University of London*

Using biodiversity and/or ecosystems to help people adapt to climate change (Ecosystems-based adaptation, or EBA) has, in recent years, received significant attention, having been championed by a range of international conservation and development actors such as the World Bank, TNC, IUCN, the UNEP and others. One of the more prominent framings of EBA emphasises its potential to bring about win-win (or even win-win-win-win) outcomes. As such, this framing attempts to imbue EBA with the same kind of intuitive appeal held by a related, predecessor term, namely, sustainable development; and indeed the literature on EBA is replete with sources which attest to its common-sense benefits. However, it is perhaps precisely the terms which claim to hold such intuitive appeal which require the most scrutiny. Whilst hypothetical benefits are overrepresented in the literature on EBA, there is little coverage of the costs and, crucially, the trade-offs that can be entailed. This

paper will present the results of fieldwork from 3 fieldsites in the states of San Luís Potosí and Querétaro, Mexico, which explore ecosystems-based adaptation in the context of protected areas. Our results suggest that whilst EBA-relevant interventions delivered significant benefits in contexts when applied at a very small scale (less than 200 people), trade-offs were evident in fieldsites which were more populous. The risk with more prominent EBA framings, therefore, is that they a) overlook the (often painful) lessons of integrated conservation and development projects; and b) can obscure more effective or locally desired adaptation measures. Finally, we suggest that what is still missing in the ecosystems-based adaptation literature is a sense of the implications for its objectives of a globally predominant neoliberal political economy.

## 9: Conservation and/as unending war in sub-Saharan Africa

Convenors: Adrian Nel (University of KwaZulu-Natal, South Africa) & Connor Joseph Cavanagh (Noragric, Norwegian University of Life Sciences)

### **“Towards implementing a green economy in Tanzania? Discourses and realities of Eco Energy Ltd.’s sugar plantation project in Bagamoyo”**

*Jill Tove Buseth, Norwegian University of Life Sciences (NMBU),*

The Green Economy (UNEP 2011) has since 2012 been put forward as i) a framework for climate mitigation, ii) a new, ‘green’ driver for economic growth, and iii) a tool for poverty alleviation, in total functioning as an overall catalyst for the achievement of sustainable development. These ideas cover a wide range of areas, but the focus in practice is often on technological and market-based solutions to ‘green growth.’ Attention to political and institutional implications are often lacking though, as are issues of power, social and environmental justice (Scoones et al. 2015).

This paper discusses the implications of large-scale environmental politics in the name of ‘green growth’ on ground in Bagamoyo, Tanzania. Tanzania has since 2010 embarked on its way to implementing a green economy through its huge national initiative of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT). SAGCOT is aimed to boost economic activity through large-scale agricultural commercialization in an area covering about 1/3 of Tanzania’s mainland (SAGCOT 2015). One of its key partners is the Swedish-originated company Eco Energy Ltd., which since 2006 has been active in the Bagamoyo district in setting up a sugar plantation for bio-ethanol and sugar cane for domestic consumption. The project has through its 9 years presented good plans and well-structured proposals for development, but has met severe hindrances on its way, and is still not operating on ground. They have been heavily accused of land grabbing issues, including social and environmental injustice, but have also met severe bureaucratic hindrances from governmental instances (Havnevik and Haaland 2007). Many aspects of this project illustrates the problems of implementing a successful green economy on ground.

Green growth can be boosted if assurances of social inclusiveness, poverty reduction and environmental sustainability are taken seriously, but as for now, not enough attention is paid to institutional implications in transferring the green policies down to local level in developing countries, nor are issues of social injustice and power imbalances. I argue that this presents a major risk and obstacle as to how the green economy wishes to materialize on ground.

## **Critical ecosystem infrastructure: The ‘green economy’, illegal logging, and the securitization of Kenya’s upland watersheds**

*Connor Joseph Cavanagh Noragric, Norwegian University of Life Sciences*

Five upland watersheds provide an estimated 75 percent of renewable surface water resources in the increasingly drought-prone country of Kenya. These include Mount Elgon, the Cherangani Hills, the Mau Forest complex, Mount Kenya, and the Aberdares range. Combined, these five ‘water towers’ support the livelihoods of millions of small-scale farmers and pastoralists – as well as a growing number of commercial agribusinesses, ecotourism ventures, and hydroelectricity generating schemes – causing a number of multilateral and bilateral actors to declare that the conservation of these areas is crucial for securing the emerging ‘green economy’ in Kenya. On this basis, numerous state agencies have sought to reconsolidate their control over the country’s upland forest estate, deploying military and paramilitary forces to carry out the violent eviction of a number of traditionally forest-dwelling indigenous groups. Such efforts suggest a shifting conceptualization of these areas not simply as commercially valuable ecosystems, but increasingly as what I will term a kind of *critical ecosystem infrastructure* or architecture, the effective functioning of which is essential not only for profitably ‘green’ economies but potentially also for political stability *as such*. Conversely, however, interviews and empirical observations suggest that certain elements within the state are simultaneously colluding with both commercial and artisanal loggers to illegally deforest portions of these same protected areas, in some cases allocating the newly converted land to political supporters. Hence, presenting results from ongoing fieldwork on the illegal trade in forest products both in Kenya and the broader eastern African region, this paper interrogates the empirical contours of the state’s ‘Janus face’ in this regard, pointing to a number of emerging tensions and contradictions within attempts to implement the ‘green economy’ amidst conditions of widespread collusive corruption and a Kenyan state that is characterized by increasingly visible internal fissures and fault lines.

### **“Green grabbing”, pastoralism and environmental dynamics in Northern Kenya. An assessment of conservation models and practices in Marsabit county.**

*Hazard Benoit (Institut Interdisciplinaire d’Anthropologie du Contemporain, UMR) & Adongo Christine (Ecole des Hautes Etudes en Sciences Sociales)*

In Northern Kenya, the history of protected areas reflects the debates that have shaped the world of conservation and environmental concerns. For long colonial assumptions about pastoralist uses of natural resources have been part of environmental policies and legitimized appropriation of nature. How does the implementation of natural resources management projects interact with pastoralists’ natural heritage and their future economies in a context of socio-ecological transition? This paper questions the relations between conservation practices and the regional environmental dynamics of five protected areas in

the broader Chalbi desert. It describes models ranging from conservationist models used for large areas to more recent experiments and socio-technical choices implemented on smaller scale-fenced parcels. Through two central water places located in North Horr and Kalacha, we also describe the impacts of natural protected areas on pastoralist livelihood in the Chalbi desert. This situation, therefore, prompts for suggestions to discuss the split between environmental conservation and development and to better integrate research on socio-ecological dynamics in environmental policies.

### **Sitzkrieg, conservation and the ends of ‘unending’ war for the forest frontier of southwestern Madagascar**

*Amber Huff, University of Sussex*

This paper explores the question of when, why and whither logics of conservation and ‘unending’ war-making coincide through the rhetorical lens of *sitzkrieg* (the ‘slow war’ of attrition) and a geographic and ethnohistorical focus on the Mikea Forest of southwestern Madagascar. The term *sitzkrieg* originated as a pun in the context of WWII, but took on new life in paleoecology when it was applied to describe a process by which indirect anthropogenic assault – through deforestation, burning and habitat disruption by growing human populations – resulted in late Pleistocene extinctions around the world (Barnosky et al., 2004; Diamond, 1989; Surovell, 2008).

The concept has become an important logic in interventionist conservation, applied by conservation biologists to explain environmental change at more recent timescales (Burney, 1999). This is particularly the case of oceanic islands like Madagascar, among the last places on earth to be permanently settled by humans, where it pervades environmental crisis narratives and justifies repressive, coercive and violent conservation policies. As applied in the context of the establishment of the Mikea Forest National Park southwestern Madagascar, the ecological *sitzkrieg* story brands forest users as invasive species, irrational, criminal burners, poachers and timber harvesters, harmful to the forest and broader environmental and economic interests (Huff, 2012). In practice, this has justified a long campaign of ‘induced insecurity’ by the government and parks service, and more recently the forced exclusion of Mikea people and others from villages and hamlets within the boundaries of the new protected area (Huff, 2014).

Critically, I argue that an inversion of the idea of *sitzkrieg*, conceived as geographically situated and protracted war-making, is a useful lens for thinking about conservation as a recent siege phase in an war of attrition for control of a resource frontier that has, over the past few centuries, figured in national and subnational politics and the construction of territorialized, relational identities. Further, the logics and language of this situated war-making have become inscribed in competing constructions of the Mikea Forest landscape itself and its salience as ally, fortification, antagonist, passive victim and decaying casualty in



unending struggle. This paper contributes to understanding contemporary conservation's role, as discursive and material strategy and motivation, in complex and on-going histories of war-making in sub-Saharan Africa, and also as to the ways in which histories of violence rework both relational identities and the boundaries between nature and culture that are contested in conservation struggles and conflicts today.

### **“Unruly” Landscapes: Understanding Border Parks and Conflict in Northern Cameroon**

*Alice Kelly (University of California, Berkeley), Paul Scholte (GIZ, Cameroon) and Mark Moritz (Ohio State University)*

Offering a counterpoint to East African perspectives, we use examples from Northern Cameroon to consider protected areas and conflicts. In particular, we seek to understand how the geographic location of parks near to international borders influences their roles in local and regional conflicts. Here we review the literature on what we term “border parks”—those parks that are close to international borders but do not necessarily include a transboundary element. Using empirically based Cameroonian examples, we consider how national parks are not simply useful to armed groups like the Boko Haram for “threat finance,” but may also be geographically ideal sites for hiding and hostage-holding. Considering how initiatives for the protection of wildlife and biodiversity (dis)articulate with the protection of human populations, we ask how and in what ways these border parks’ use by armed actors influences their ecological sustainability, as well as the ‘security’ of nearby pastoralists and villagers. In these analyses we elucidate how protected area establishment and subsequent declining intensities of management may lead to local population’s victimization in very different ways than currently outlined by the critical conservation literature. Finally, taking a Foucauldian approach, we ask how protected areas, once used by colonial and national states as a means of disciplining ‘unruly’ populations and landscapes have now become avenues and sites of operations for those directly seeking to threaten national territories.

### **The marketization of green militarization: selling violent enclosure in the Virunga National Park, DR Congo**

*Esther Marijnen (Vrije Universiteit Brussel) & Judith Verweijen (Ghent University)*

The Virunga National Park, located in the war-torn eastern DR Congo, is a sanctuary of armed groups engaged in (the protection of) natural resources exploitation. While hampering conservation efforts, this situation of seeming unending war has also become a resource for the park. Drawing on colonial tropes of African barbarism, it allows for converting the park into a ‘space of exception’ that requires ‘external’, including violent interventions to ‘bring order’ to this uncivilized/uncivilizable space (cf. Dunn, 2003; Neumann 2004). Thus, the park presents itself as an ‘island of stability’ that, following a win-

win-win logic, secures at once 'conservation', 'development' and 'peace' (cf. Büscher, 2013). The park also capitalizes upon the state of war to market its law-enforcement and counterinsurgency oriented approach to conservation, inviting individual consumers to directly fund the related practices. Thus, consumers can fund advanced equipment and European trained dog teams to 'hunt down poachers', or donate to the Fallen Ranger Fund. This creates what Igoe (2010) calls 'double fetishization', as it not only conceals the context shaping the relations between individual donor and recipients and the effects of these relations, notably the production of violence, but also the processes that enable this concealment in the first place. This contributes to the legitimization of a counterinsurgency-oriented approach to conservation and 'stabilization' that in practice enkindles, rather than defuses violent conflict.

### **Anarchy in the Forest: Conflict, War Machines and Forest Management in Western Uganda.**

*Adrian Nel, University of KwaZulu-Natal, South Africa*

One dominant trope of explanation in the Ugandan forestry sector is that many of its problems relate to the 'anarchy' unleashed by the misrule of Idi Amin and his system of double production which advocated utilisation of protected forest areas. Furthermore contemporary fears of 'encroachment' onto de jure protected areas and deforestation comprise a fetish which has legitimated a large recentralisation and privatisation campaign on the part of the countries' neoliberalised forestry governance structure, again in the face of the perceived anarchy that it is assumed would otherwise pertain. All of this notwithstanding limited attempts at the decentralisation of forest management since the 1990s that have since been subsumed in favour of industrial tree planting models. This paper seeks to circumvent these instrumental perceptions by applying anarchist and post-structuralist insights to question the role of the state, historical conflict, and the contemporary violence of the state against its own citizens in continued state formation and flatering forest management. It takes the example of Bunyoro region on the western periphery of the country, a site of recent oil discoveries adjacent to the tumultuous Kivus of the Democratic Republic of the Congo, to explore the ongoing interconnections between conflict and forestry management, charting in particular the ways the episodic activities of 'war machines' clash with the state apparatus, over both contemporary violence and attempted reparations for past conflict. I conclude that experiences in the area point to the need for substantive devolutions and decentralisation of management responsibilities to the management of local commons in order to disrupt a form of forestry management which manifests as ongoing low intensity conflict.

**Protection, loss, and the protracted violence of displacement in Mozambique's  
Limpopo National Park**

*Rebecca Witter, University of British Columbia*

Over the past decade, conservation authorities' ideas and discourses about the need to resettle residents out of Mozambique's Limpopo National Park (LNP) have shifted. They first envisioned and planned for resettlement as an opportunity for needed social and economic development, then as a means to protecting residents from dangerous wildlife. Now resettlement is a mechanism for protecting wildlife in the adjacent Kruger National Park (KNP) in South Africa from dangerous Mozambicans, (aka "poachers"). Several LNP villages still await their removal, yet in the meantime, residents have already incurred significant invisible and uncompensated losses due to food and economic insecurity, the criminalization of their livelihood strategies, mounting security threats linked to poaching, and the subversion of their self determination. With respect to the latter, many residents initially resisted resettlement, but now see little other choice but to move. I draw from long-term ethnographic research to assess the protracted violence of being 'displaced in place' in the LNP. I focus on how the concurrent rhino poaching crisis and militarization of conservation 1) contributes to competing ideas about who or what is at risk and who or what needs protection in this region and 2) amplifies resident losses. I position these experiences as one epoch in more than a century of cross-border displacements endured by current LNP residents and their ancestors. I then underscore the need to account for the cumulative impacts of loss in environmental planning.

**Creating wilderness for profit: the politics of neoliberal conservation and  
ecotourism in Northern Tanzania**

*Jevgeniy Bluwstein, University of Copenhagen*

I will present a case of neoliberal conservation through ecotourism on village land, that rests on a business model that excludes land sharing with local communities. Through this particular business model I will make an attempt to explore 1) what makes this case a neoliberal form of conservation for the investor, the community and the state, and 2) the conditions for the emergence of green militarization for neoliberal conservation and ecotourism. I will show how this particular model for conservation, land appropriation and capital accumulation is resisted by a local community and how violence becomes an integral part for both parties in asserting territorial and property claims. Finally I will link the violent politics of neoliberal conservation to tourism-driven efforts to construct a particular kind of wilderness that can meet the expectations of wealthy safari tourists and ecotourism investors.

## **Frontier Legitimation and Post-Colonial Contestation: The case of the Virunga National Park in the Democratic Republic of the Congo**

*Stephan Hochleithner, University of Zürich, Switzerland*

The Virunga National Park (VNP) in eastern DR Congo (DRC) is a nature conservation area featuring unique biodiversity, including some of the last of the famous mountain gorillas. Yet, it is also a contested space; its territory is subject to a variety of claims launched by many different actors: The national park's management claims the impenetrability of the park's borders, local peasants claim resources within the park for cultivation, lumbering and fishing, the Congolese government claims the right to give away oil exploring concessions and international donors and organizations emphasize the necessity to protect the park's biodiversity. Additionally, armed groups operate close to and inside the park and use resources to finance themselves, for example by producing charcoal from timber lumbered within the park's borders.

Based on ethnographic fieldwork, the proposed paper argues, that all of these claims are based on different narratives, whereby two are of major importance: The local peasant's claims follow a post-colonial narrative, aiming at (re-)gaining access to the park's resources; The International donors' claims are based on a frontier narrative, legitimizing the rigid implementation of its nature conservation practice. By understanding the peasant's practices as subordinate to the protection of biodiversity and by overlooking the colonial processes of displacement prior to and in course of the VNP's establishment, the space concerned is considered empty, but full of biodiversity with huge potential with global relevance. Situated within a seemingly chaotic, violent environment, the narrative suggests, maintaining the VNP is part of a "civilizing" mission, bringing order and development to DRC's east. On the ground, though, the clashes of the narratives very often result in violent conflict, adding to the ongoing violent situation.

## **10: A Political Ecology of Diverse Actions, Ideologies, Hegemonies, and Contestations in the Americas and Globally**

Convenor: Carlos G. Vélez-Ibáñez, Arizona State University

We would like to propose a panel for the thematic focus of forms and conceptions of violence including but not limited to structural and material forms of violence, symbolic and epistemic violence as the Panel will address four linked issues of versions of violence and repressive actions and their discontents: the impact of hegemonic language practices in Southwest North America; the ramifications of land loss and ethnic marginalization of Mexican indigenous peoples--a struggle since the early Spanish colonization; the conflicts posed by neoliberal reforms and practices for the Puerto Rican environmental movement; and how do groups recruit their members and reshape their souls to the point of being willing to die for them. Each represents different aspects of contestations, adaptations, recruitments, and ideological convictions of purpose and intention.

### **Language Hegemonies and their Discontents in Southwest North America.**

*Carlos G. Vélez-Ibáñez, Arizona State University*

The focus of this work is on the development of the manner in which languages and their attending ideological constructs were imposed upon resident populations from 1540 to the present basically pertain to this regional arena and is at the crux of this work. From the Spanish Colonial penetration by explorers and colonists through the national impositions by conquest made by the United States and continued imposition by the Mexican state in the SWNAR region, we will attempt to analyze the suppositions, ideologies, premises, and mechanisms by which Spanish and English became situated among Native peoples and later national populations of Mexicans during the 19th century and continuing with their descendants and migrating populations crossing the bifurcated border.

### **Environmental Conflicts, Resistance and Democracy in Contemporary Puerto Rico: A Political Ecology Perspective.**

*Carmen M. Concepción, University of Puerto Rico*

This paper aims to address two main questions: How and to what extent have the neoliberal policies and practices affected the possibilities to advance an agenda of environmental protection in Puerto Rico? What are the challenges posed by neoliberal reforms and practices for the Puerto Rican environmental movement? The research has three objectives. First, examine the main environmental policies and actions that have prompted recent government administrations on the Island aimed at restricting what has been seen as barriers to economic growth. Second, analyze specific conflicts that reflect the most

important issues in the environmental debate and identifying the central claims raised by activists as well as the State's response. Third, explore signals of creating new strategies of resistance and alternatives to curb environmental damage. This paper is informed by the literature that explores connections between neoliberalism and environmental politics (e.g. Castree, 2008; Heynen et al. 2007; McCarthy and Prudham, 2004; Peck, 2004).

### **Dangerous Groups and Perilous Ideas and the shaping of members souls: Notes toward an anthropological understanding of non-state actors and violence**

*James B. Greenberg, University of Arizona*

We are living in dangerous times. Increasingly armed conflicts involve non-state actors. Whether we label them as freedom fighters, ethnic militias, or terrorists, this phenomena raises profound questions not just about causes and contexts, but how anthropology thinks about these matters. While headlines may focus on "terrorism," terrorism needs to be understood within a family of related phenomena. In this paper I draw upon a host of related literatures in anthropology that includes the anthropology of war, blood feuding, violence, armies, terrorism, gangs and organized crime, messianic and revitalized movements, secret societies, cults, ritual and religion to explore: 1) how do groups recruit their members and reshape their souls to the point of being willing to die for them 2) as this would seem to involve ideological work, I propose to explore how secular or sacred ideas are fashioned into a perilous set of ideas that form a central credo.

### **Business involvement in biodiversity conservation: the case of Chilean Forestry**

*Thomas Smith, University of Leeds*

There is a long running debate concerning the relationship between markets and biodiversity conservation, with different theoretical perspectives identifying varying levels of conflict between them. Although businesses - large corporations in particular - have been touched upon in this debate, uncertainty remains around how businesses think about and integrate biodiversity and its conservation within their strategies and operations. Is it a tangible concern, or an afterthought, dealt with through clever marketing and public relations? To what extent are business actions continuing market growth at the expense of conserving biodiversity? To what extent do local contexts - including actors, institutions and ecosystems - influence business decision-making? This paper will examine the different perspectives on the relationship between business and biodiversity conservation, and the implications for how business thinking is perceived, through a detailed empirical exploration of the forestry industry in nature conservation in Chile; a country with a strong neoliberal tradition and an industry marked by conflicts with indigenous and local communities in the recent past. Through interviews with forestry industry representatives, government officials, conservation NGOs and other stakeholders this study explores how current practices and industry sustainability policies are perceived by the different actors, within and outside of

forestry enterprises, and to what extent businesses are seeking to manage perceptions of how they take account of biodiversity, as opposed to taking substantive actions. This study contributes to both an improved understanding of the role of private actors in biodiversity conservation, as well as drawing common but together hitherto divided themes and debates across several disciplines

## **11: Landscapes of Knowledge, Power, and Resistance: The Political Ecologies of Flex Crops in Latin America**

Convenors: Adrienne Johnson (Clark University) & Sara Mingorría (Autonomous University of Barcelona)

In recent times, Latin America has experienced the accelerated expansion of ‘flex’ crops – crops and commodities (such as oil palm, sugar cane, and jatropha) that have multiple, interchangeable uses as food, feed, or fuel (Borras Jr. et al. 2014). Though often promoted as opportunities of economic wealth and livelihood stability, flex crops and their environments are closely associated with processes of environmental vulnerability, ecological violence and social conflict. In Latin America, a combination and/or collision of unique and often violent institutional, political, and material processes lay a foundation that facilitates the growth of, but also the contestation to, flex crop landscapes. Specifically, such landscapes are enhanced by the increase of international capitalist investment in industrial agricultural projects, the emergence of global sustainable governance mechanisms that structure commodity production, and the ambivalence of state bodies who (actively or passively) promote the expansion of flex crops. In response, a growing set of social actors, organizations, and movements have emerged to counter and/or lessen the effects of large-scale flex crop landscapes and to form alternative ecological arrangements. Many of these collectives employ mandates centering on ancestral claims to land, territorial knowledge, and principles of food sovereignty to resist and/or alleviate the encroaching pressures of flex crop processes. This session will explore how the multi-scalar dynamics of global interests, national objectives, and local ways of life converge to produce the current violent landscapes of flex crop ecologies in Latin America. The papers discuss crops such as oil palm, soy, and sugarcane and examine through what (violent) mechanisms flex crop landscapes are rationalized, negotiated, and forced but also challenged, rearranged, and resisted.

### **The Socio-Ecological Ramifications of Boom Crops: Examining the Impacts of Oil Palm Expansion upon Household Reproduction and Environmental Resources in Northern Guatemala**

*Anastasia Hervas, University of Toronto*

The cultivation of oil palm in Guatemala has increased over 600% since the early 2000s, thereby quickly and profoundly changing landscapes and livelihoods in the rural countryside. Since 2008, cultivation of oil palm has been actively promoted by the state as part of its National Food Security Strategy, and the palm industry is continuing to expand despite growing environmental concerns, particularly over deforestation and depletion of already scarce fresh water resources. Meanwhile, oil palm’s actual benefits for the livelihoods in the host communities remain unclear. For this study, 80 households were surveyed in two communities in the Lachua Ecoregion in the Guatemalan northern lowlands, where oil palm



is primarily grown by small-medium scale independent farmers, most of whom got their start through the ProPalma government program (2008-2009). In addition, in-depth interviews were conducted with local community leaders, palm growers, national park staff, and state officials. Survey results echo previous studies suggesting that oil palm employment generally tends to increase household income. However, palm employment is mostly temporary and physically taxing. Some households are unable to access palm employment and thus become further marginalized. Moreover, the community with the high presence of oil palm has experienced significant deforestation for palm establishment, accompanied by decreases in water availability for household use (e.g. water level of wells and local rivers) observed by community members over the last few years. Possible changes in regional hydrology have already been at the center of conflict within and between communities, although science-based studies are needed to quantify and confirm the causes of these changes. Disappearing forest resources carry implications for firewood availability, as well as possible pressure on the protected area in the region.

### **Class dynamics of agrarian change in Guatemala's Polochic valley**

*Lazar Konforti, University of Toronto*

The Polochic valley in Guatemala's north-eastern lowlands has been transformed by oil palm and sugarcane production over the past 15 years. Though the valley had long been a site of commercial coffee production, the rise of oil palm and sugarcane fundamentally changed the terms and conditions of both labour and access to land such that many local households lost access, wholly or partially, to their main source of livelihood. Though global market forces played a role in this transformation – a coffee crisis combined with a flex crop boom – I argue that it is impossible to account for agrarian change in the Polochic without understanding the dynamics of local class conflicts and their impacts on agrarian structures. First, this paper explains how peasant militancy in the 1990s effectively weakened the feudal *colonato* system and how the subsequent rise of flex crops was contingent on the repression of said peasant movements. Second, the paper looks at how the 'repertoires of contention' used by both labouring and capitalist classes changed over time to adapt to new macro-political climates. Third, the paper examines how collective memories shaped peasant strategies, creating divisions, facilitating mobilisations, and pushing organisations to seek new tactics and discourses. Finally, the paper situates the ongoing dynamics in the Polochic within long-term trajectories of agrarian change and balances of class forces in Guatemala and concludes that, despite a sizeable historical disadvantage in both political and economic power and new global market dynamics over which they have no control, peasant movements came remarkably close to fundamentally altering the trajectory of agrarian change in the Polochic valley. Guaranteeing or improving the livelihoods of Guatemala's marginalised rural population might hinge on providing leverage for peasant organisations to fashion agrarian systems that benefit them rather than on the technical fixes prevalent in development circles.

## **Monoculture versus complexity: Resisting modern development in an Afro-Brazilian landscape**

*Case Watkins, Louisiana State University*

This paper integrates theories of legibility, complexity, and diffusive (or rhizomic) power to interrogate the supposed hegemony of modernity and development in the biodiverse oil palm landscapes rooted in Bahia, Brazil. In contrast to the agroindustrial firms and monocultures that dominate global palm oil production, a dynamic cultural landscape of African oil palms in Bahia has for centuries supplied local alimentary and spiritual demands for palm oil—an essential resource in many Afro-Brazilian cultural expressions. Motivated by shifting international markets and agronomic diplomacy, Brazilian elites set out to modernize Bahia's traditional palm oil economy in the mid-twentieth century. A series of modern development interventions, from agroindustrial schemes imposed by the military junta to twenty-first century biofuel programs, have since sought to transform the complex Afro-Brazilian landscape into a legible oil palm monoculture. Despite those top-down efforts, "semi-wild" or subspontaneous groves and traditional polycultures continue to dominate the region's oil palm landscapes. Bahia's complex palm oil economy endures as an active socioecological rhizome cooperating and co-conditioning the (allegedly) more powerful modern development interventions and structures enforced by capital and the state. Drawing on fieldwork, ethnography, archives, and GIScience, this paper demonstrates how modernist development impositions only complicated the cultures and landscapes of Bahia's palm oil economy, rather than reduce them to austere monocultures, as intended. Instead, assemblages of small-scale farmers, oil processors, and various varieties of oil palms continue to transform cultures and landscapes through processes of more-than-human resistance and change. Never a settled entity, Bahia's dynamic Afro-Brazilian landscape emerges through political and socioecological contention.

## **Cultivating Consultation: An Examination of the Knowledge Politics of the Roundtable on Sustainable Palm Oil (RSPO) in Ecuador**

*Adrienne Johnson, Clark University*

The process of 'public consultation' is increasingly becoming a necessary component in environmental resource governance mechanisms. Often embedded in the legal regulatory framework of a country, public consultative activities usually dictate that communities and other resource-users must be consulted before the establishment of any major project that impacts their access to environmental resources. I show how participatory environmental governance, enacted through public consultation, is a form of violent power relations and one way through which corporate organizations unevenly crystalize their dominance, specifically in the palm oil industry. I use the RSPO's national interpretation in Ecuador to argue that industry-led consultation is a key micro-strategy used to root, shape and legitimize the governmentalities of the RSPO mainly through the uneven control and

discipline of knowledge production and circulation. Drawing on 14 months of fieldwork experience, the paper shows how practices associated with the consultation such as the identification of stakeholders, commentary input, and commentary analysis shaped the outcomes of the RSPO standards in a predictable way that was completely in favour of industry interests. Overall, I argue that the goal of the consultation to abide by global RSPO norms took precedence over the ultimate form and content of the consultation. I conclude with comments on how Ecuadorian social actors and the movements they are a part of may utilize the RSPO's governance infrastructure to forge transformations towards a better palm oil industry with the realization that simultaneously, the RSPO disciplines actors to limit their material and ontological demands and visions to those legible to the RSPO.

### **The violence matters: The dynamics of oil palm and sugarcane conflict in the Polochic Valley, Guatemala**

*Sara Mingorría, Universitat Autònoma de Barcelona*

This paper examines the role of social organizations in the new wave of agrarian conflicts in the Polochic Valley, Guatemala (1998-2014). Over the last two decades, the expansion of oil palm and sugar cane plantations has contributed to deepen the already existing uneven access to land and resources, thus exacerbating the historical struggle of indigenous peoples for recognition and land rights in the region. Since 2009 a number of different social organizations – e.g., peasant organizations, research institutes, and international NGOs – along with Maya-Q'eqchi representatives started to organize themselves in response. They claim access to land and the stop of monoculture expansion in the Valley. Today, new plantations spread over the fertile lands despite the land entitlement of some families by the government in 2014, after a spate of violence and the ensuing social reaction. Based on participant observation as an activist-researcher, interviews with key actors and community leaders, and media monitoring, I identify three stages in this new wave of conflicts ('silenced', 'unraveled', 'silencing'). They are distinguished based on: 1) the intensity of violence; 2) the visibilities of different discourses which explain the root causes of the conflict and; 3) the strategies of the indigenous Q'eqchi' communities and other social organizations to resist the expansion of export-oriented crops. On these grounds, two main propositions are discussed. First, the evolution of conflicts in the Polochic Valley – from a rather localized unknown upheaval to an international, greatly cited case conflict – can be explained by coordinated complaints from national and international organizations during the violent evictions of 2011. Second, the conflict becomes invisible again due to the fear of repression and the organizational exhaustion of resisting and maintaining relations with a diversity ally organizations for times of emergency. Finally, I discuss how the perception of success or failure of resistance depends on each particular organization's role along the identified stages of the conflict.

## **12: Contested extractivism, society and the state: Struggles of mining and land in times of global changes**

Convenors: Bettina Engels (Freie Universität Berlin) & Kristina Dietz (Freie Universität Berlin)

This panel explores and conceptualizes struggles over land and mining that are linked to global changes of capitalism. Capital investment in mining and land resources has grown at an unprecedented pace since the mid-1990s. This has led to the expansion of (industrial) mining activities and agro-industrial production patterns into areas hitherto sparsely exposed to capital forces. These processes result not only in ecological destruction and degradation, but challenge societal nature relations of the recent past and thus transform socio-spatial configurations, local livelihoods and social power relations. These transformations do neither occur in a vacuum nor in a linear process: they are contested by a variety of social actors at different scales and through manifold strategies.

The panel contributes to a bottom up understanding of the global changes of nature appropriation and its outcomes. It takes up the idea of Michael Watts and Richard Peet (2004: 6) of a 'broader and more sophisticated sense of the *forms* of political contention and deeper conception of *what* is contested'. The papers draw on recent concepts debated within political ecology, such as power and authority, scales, networks and places, commodity frontiers, contention and transnational activism, materiality of nature. Questions addressed are: How are global changes and social conflicts interrelated? What conditions promote or hinder collective contentious action around mining and land use changes? What discourses and structures impact on conflicts over mining and land and in what way? Who are the actors and what is the role of the nation state? To what extent does the specific materiality of a certain resources and space impact the way social conflict action unfolds? What are the emancipatory potentials of processes of politization around mining and land use changes?

### **A world-systems frontier perspective to land: Unravelling the uneven trajectory of land rights standardization**

*Hanne Cottyn, Ghent University, Belgium*

This paper proposes an analytical perspective to struggles over land that both departs from and supplements World-Systems Analysis. It approaches frontiers and frontier zones as conceptual tools in indicating and understanding the uneven local-global interactions underlying historical capitalist incorporation processes. The notion of frontier highlights the role of 'peripheral agency' in local-global interactions, revealing incorporation as a deviating process of negotiation. The paper applies the proposed conceptual framework to the analysis of historical transitions in land rights regimes, in particular the implementation and contestation of a privatizing land reform in Andean peasant communities. The analysis of

Bolivia's nineteenth century land reform demonstrates how the interplay of the modernizing aspirations of a liberal government and strong communal land claims forced local communities, rural elites and government actors into a complex negotiation. The repercussions of the conflicts and alliances developing on the Bolivian highlands undercut the universality and uniformity of the global trajectory of land dispossession and concentration. The frontier perspective elaborated in this paper is instructive to the analysis of peripheral agency in the context of incorporative processes in other temporal and spatial settings, in order to give more texture to our understanding of an ever more globalizing world.

### **Decentralization, Institutional Ambiguity, and Mineral Resource Conflict in Mindanao, Philippines**

*Boris Verbrugge, Radboud University, Anthropology and Development Studies*

Based on an analytical framework that builds on theories of incremental institutional change, this article interrogates the relationship between decentralization and mineral resource conflict in the Philippines. Here, efforts to decentralize control over mineral resource wealth have resulted in a highly ambiguous institutional arena, wherein heterogeneous actor coalitions are attempting to influence trajectories of institutional change, and the associated distribution of mineral wealth. On the ground, this institutional renegotiation produces a diverse range of conflicts. Emerging on top of these institutional struggles are local elected politicians, which raises important concerns over elite capture of the decentralization process.

### **The ambivalent role of chiefs in conflicts over land grabbing in Ghana**

*Sarah Kirst, Freie Universität Berlin, Institute for Latin American Studies*

In this paper, I analyze how traditional authorities' (chiefs) actions are linked to land grabbing and related conflicts by examining two cases of land grabbing in the Ashanti and Northern Region of Ghana. The paper will be based on empirical data gathered during fieldwork in November 2015 and March to June 2016. Chiefs are key players in Ghana's land administration framework which is based on a pluralistic legal system: The customary and the statutory system. Approximately 80% of land is administered under the customary tenure regime with chiefs holding the land in trust for their communities and thus playing a crucial role in land transactions. Particularly large-scale land transactions (critically referred to as land grabbing) are frequently contested and result in conflicts. Regardless of a sharp increase of chiefs' power in recent years, especially international donors tend to see traditional authorities mainly as mediators within their communities and between the community and third parties as well as agents of development facilitating the implementation of development projects. But traditional authorities are not anachronistic. They have been shaped in a specific historical and socio-political context and are subject to

cultural and political change which by itself is contested within society. The same applies to the verbally transmitted customary norms and regulations. By comparing both cases I highlight how traditional authorities are perceived in conflicts over land by local residents, how they perceive their own role, what narratives are used to legitimize or delegitimize their actions, and in what ways different forms of traditional rule impact the emergence and dynamics of conflicts over land.

### **Contestation, collusion and corruption in small-scale gold mining in Ghana**

*Gordon Crawford, Coventry University, Centre for Trust, Peace and Social Relations*

This paper examines the recent influx of foreign miners, especially from China, into the artisanal and small-scale gold mining (ASM) sector in Ghana, and analyses both the impact of foreign involvement and what this episode informs us about the Ghanaian state. Despite ASM being 'reserved for Ghanaians' by law, large numbers of foreign miners arrived with the hike in gold prices from 2008 onwards, including tens of thousands from China, all working on an illicit basis. An astonishing free-for-all ensued in which Ghanaian and Chinese miners engaged in contestation and conflict over access to gold resources, as well as collusion and collaboration, a situation described as 'out of control' and characterised by 'legal impunity'. Chinese miners in particular introduced mechanisation and new technology into the sector, resulting in irrevocable changes to this traditional economic sector to the extent that much small-scale mining can no longer be described as artisanal. Where was the state in this context? The government was very slow to respond, despite increasing media coverage of local conflicts and intensified environmental destruction. Finally President Mahama established a Task Force to 'flush out' illegal miners, a military-style operation with the deportation of almost five thousand Chinese miners and small numbers of other nationalities. Yet the state was not absent pre-Task Force. Foreign miners were able to operate with impunity because they were protected by those in authority, i.e. public officials, politicians and chiefs, in return for private payments. Various state institutions failed in their responsibilities. Yet this was not due to weakness or lack of capacity. Rather public officials 'turned a blind eye' to illicit gold mining in return for a share in the large sums of money being made. Public office becomes a means of private accumulation rather than public service. The consequences for low-income Ghanaians who depend on ASM are explored.

### **Land and Labor: Union and labor struggles in times of sugarcane expansion in Brazil**

*Jan Brunner, Freie Universität Berlin, Institute for Latin American Studies*

In response to a gap in recent land grabbing literature in this paper I focus on the role of labor in processes of changing land control and land use. The paper aims at bringing labor back in and generating new insights on the relationship between changes of land control and use, social struggles and labor. Therefore I analyze land use changes and modifications in

control over land in the sugarcane sector in the State of São Paulo. Since Lula da Silva came into office in 2003, the Brazilian government has supported the expansion of sugarcane, mainly for the production of agro-ethanol as fuel for cars. Within this period the production of sugarcane grew dramatically. Especially in the State of São Paulo processes of concentration and internationalization of the sugarcane and agro-ethanol production took place. At the same time, the mechanization of sugarcane cutting, formerly manually cut and harvested by loads of workers, increased continuously. In most regions within the State of São Paulo the sugarcane cutting is nowadays 100 per cent mechanized with few people working on the fields. Whereas existing studies prove strong impacts on workers and labor relations of these processes of transformation, little is known about what these processes meant for unions, the organization of workers and their struggles for better working conditions. I therefore look at how unions were affected by the above mentioned changes in the sugar-cane production, and how they reacted to the reorganization of the sector. I analyze how the organization and struggles of workers have changed within this time. Empirically I base my analysis on a multiple set of data collected during field trips to Brazil in November-December 2015 and in April-June 2016.

### **Space matters. The spatial dimension of conflicts around GMO soy production in Argentina**

*Anna Dobelmann, Freie Universität Berlin, Latin American Institute*

The paper explores the significance of space in conflicts around the production of soy in Argentina. Due to the early introduction of GMOs and the radical neoliberal transformation of the agrarian sector (as of the whole economy) in the 1990s and its ongoing orientation towards the world market, the Argentinean soy production is a paradigmatic example for what I call a globalized and engineered agriculture. Argentina has become the third largest producer and exporter of soy worldwide, of which almost 100 percent is genetically modified. The transformation of the Argentinean agriculture led to a restructuring of the productive relations and raised conflicts in different areas. The most contested topics are fumigation with glyphosat, export taxes and the modification of the plant varieties protection law (ley de semillas). What are contested in these conflicts are the mode and the vision of agricultural production, different understandings and appraisals of nature and technology as well as the rent appropriation. The paper analyzes the interaction between different social and economic conflict actors, the role they play, the position they have and the resources of power they got. It focuses on the mediation between the power resources of different actors and the (political) spaces they use and got access to. The presented findings show that the actors' access to different (political) spaces are crucial to understand the dynamics of the conflicts and the power relations played out there. By doing so it also examines the role of the nation state in these conflicts as well as their relevance and role in a globalized and engineered agriculture.

## **Defining development in conflicts over mining and agro-industry**

*Louisa Prause, Freie Universität Berlin, Otto Suhr Institute for Political Science*

In this paper, I analyze how development visions are negotiated in conflicts over mining and agro-industrial projects by looking at the struggles against the agro-industrial project Senhuile and the Sabodala Gold Mine in Senegal. The paper will be based on empirical data gathered during field work in February and March 2015 and March-May 2016. I argue that what is negotiated in conflicts over the establishment of projects that transform large tracts of land for valorization of natural resources are not only technical issues such as compensation payments or royalty rates but broader visions of development and spaces of participation. First, I identify the different actors that claim to have a stake in defining development in the context of large-scale mining and agro-industrial projects. Second, I consider how narratives of alternative development are constructed within the framing strategies of the groups resisting large-scale projects. Third, I show how local populations together with civil society actors struggle to become agents of their own development. In the comparison of both cases I highlight similarities and differences in the way development visions and spaces of participation are negotiated in the mining and agricultural sector.

## **State-owned mining in Chile or Why some communities are more contentious than others**

*Bettina Schorr, Freie Universität Berlin, Latin American Institute*

Social conflicts over mining have multiplied in the last decade in Latin America and seem to vary significantly regarding their dynamics and outcomes. This paper argues that one factor that explains variation in emergence and dynamics of conflicts over mining is the differential involvement of the state. Its main hypothesis is that in sites with state-run mining, the opportunities of local actors to mobilize on behalf of their claims are more constrained than in sites with privately owned, transnational companies. It highlights two reasons: Contention involving private transnational corporations enables local actors to use a range of instruments and resources largely unavailable to local actors involved in contention with state-owned companies (mainly connections to transnational networks, access to external resources, etc.). In contrast, due to strong support from national and sub-national governments, state-owned companies tend to be less, not more, accountable to political pressures on environmental matters. Furthermore, mobilizing against a public company defended both by national and sub-national authorities, and by general public opinion as legitimate providers of national wealth and guarantee of national sovereignty, is significantly more difficult than targeting a transnational company. The hypothesis will be illustrated by a study on the emergence of mining conflicts in Chile.



### **13: Neoliberal Conservation and "actually existing" conservation in the Global North**

Convenors: Jose Cortes-Vazquez (University of Sheffield) & Andy Lockhart (University of Sheffield)

Recent years have seen the theoretical development of the distinctive field of neoliberal conservation studies (Büscher, Dressler, & Fletcher, 2014; Büscher, Sullivan, Neves, Igoe, & Brockington, 2012), concerning the growing enthusiasm for supposed 'win-win' solutions of the green economy and conservation markets, coupled with institutional and regulatory reconfigurations, the devolution of governance responsibilities to non-state actors, and new governmentalities. Empirical work has concentrated on the variations of, contingent development and resistances to 'actually existing' biodiversity conservation policies and practices in the global south, and the contestation of green economy and conservation discourses at the global level. However, relatively little work has been produced to date on 'actually existing' conservation in the advanced economies of the global north. While plenty of critical empirical studies exist, they are rarely framed explicitly in relation to this literature, and seem to have made little impact on the development of theory. The aim of this session is to begin to address this gap, to ask what might be different about neoliberal conservation in the global north in often radically different social, environmental and institutional contexts, while interrogating the theoretical implications for neoliberal conservation studies.

We would ask, for instance:

- what difference land politics makes in places where land has long been highly commodified and societies largely urbanised;
- what relevance conservation's historical formation in the global north and (neo)colonial diffusion around the world has on how policies and practices play out in the so-called developed world
- what role the state plays in the spread of neoliberal conservation policies in advanced economies;
- how the politics and practices of mass membership NGOs and other non-state actors diverge 'at home' in the global north, as opposed to abroad;
- what can be said about the differentiated geographies of labour in conservation and environmental management in the advanced economies

## **Biodiversity Offsetting in the EU – Exploring the “Net” in the “No Net Loss” of Biodiversity Initiative**

*Andrea Brock, University of Sussex*

Biodiversity offsetting has been gaining increasing attention in the critical political economy/ecology literature; especially in work on “neoliberal conservation” (Büscher et al., 2012; Sullivan, 2013; Robertson, 2012). Scholars have criticised the increasing commodification and financialisation of nature; the reliance on market-based instruments in environmental governance, underlying issues of equivalence and commensurability, and local impacts. However, many of these instruments, while labelled, sold and theorised as market instruments, don’t resemble textbook-markets in practice. On the example of the EU No Net Loss of Biodiversity Initiative, which is currently being developed, I suggest that, rather than focusing on the market-element of the scheme, it might be more meaningful to analyse it as a flexibility mechanism to manage, discipline and control nature while facilitating continuous capital accumulation, especially by the extractive industries. The focus on flexibilisation, rather than marketisation, allows for a more in-depth focus on the underlying assumptions and beliefs of biodiversity offsetting; in the restorability, commensurability and manageability of nature: the “net” in “no net loss” of biodiversity policies. These assumptions, embedded in Western, masculine sciences and views of nature, rely on a range of new valuation techniques, measurements, and concepts – from ‘mitigation hierarchy’ to ‘additionality’ – and make nature subject to performance standards, monitoring and assessments, while being framed as business risk and opportunity for growth. This further legitimises de-politicising managerialism and top-down global governance in which offsetting can serve as rationalising technique for enabling business-as-usual.

## **From nature-as-regeneration-strategy to nature-as-fetish: a historical-geographical excavation of Green Infrastructure policy in UK (1981-2016)**

*Dimitrios Bormpoudakis, University of Kent*

‘Nature’ is not static; it is constantly undergoing discursive and material transformations. One of the latest is the framing and use of nature as infrastructure: nature-as-infrastructure. From what the European Commission calls ‘nature-based-solutions’, to explicit Green Infrastructure policies and developments across the globe, the infrastructuralisation of nature is continuing apace. Nevertheless, and despite the profound change in the material and ideological ways nonhuman nature is treated, little critical theoretical or empirical scholarly attention has been devoted to it, especially from geographical/anthropological perspectives. This presentation is devoted to a historical and geographical reconstruction of neoliberal policy and practice in the UK, as seen through the emergence and evolution of the concept of Green Infrastructure. I use the conceptualisation of nature-as-infrastructure and theory from anthropological and geographical studies of infrastructure, to theorise it as a

fetish. Empirically, I draw on archival and current documentary data, as well as a set of interviews with key players in the development of green infrastructure in the UK. Beginning in the late 1970s, I trace the concept's emergence in post-crisis regeneration strategies in Liverpool and the post-crisis idea of nature-led regeneration. I then catch-up with Green Infrastructure in the early 2000s and identify its gradual assimilation into the 'valuing nature' discourse and practice that is currently reaching a peak. Finally, by tracing the commonalities between green infrastructure and early colonial natural resources mapping, I conclude with a theoretical proposition that links the fetishisation of nature to recent developments in capitalist political-economies.

### **Conservation conditionalities in agriculture: Cultures of subsistence and dependency in Eastern Europe**

*Eszter Krasznai Kovacs, University of Cambridge*

In this paper, I will consider the integration of conservation objectives into agriculture subsidies, to look at how these subsidies have transformed the livelihoods and farming practices of farmers particularly in Eastern Europe. Though much overlooked, the most geographically widespread 'actually existing' attempts at mainstreaming conservation in the European Union take place through the Common Agricultural Policy's (CAP) agrienvironmental and 'greening' measures. Agricultural subsidies are much-criticised for their environmental, market and socio-political effects and consequences (Hill, 2012). Since the enlargement and accession of eastern states to the European Union, however, the amount of land under the purview of CAP incentive structures continues to grow. Consideration to the forms and tools of state governmentalities have highlighted features commonly identified as 'neoliberal', such as requiring land privatisation, 'hybrid' state-private oversight institutions, increased individual responsibility for land use activity and a rise in 'audit cultures'. Indeed, high technological sophistication has enabled rapid and cheap holistic surveillance to European states over otherwise distant and marginal rural areas (Kovacs, 2015). The environmental lobby and conservation sector have had a significant role in these developments, at both European and member state levels. Herein, I will unpack how farmers can be characterised through differential attitudes to and dependencies on subsidies, wherein conservation (as defined and attempted by the EU) has become a (frequently resisted) part of farming livelihood practice and philosophy. These attitudes have important ramifications not only for biodiversity conservation, but also for the production of food and the maintenance of farming as a viable livelihood option.

## **Neoliberal conservation as a contested process? Critical challenges in post-crisis Europe**

*Jose A. Cortes Vazquez (University of Sheffield) & Evangelia Apostolopoulou (University of Cambridge)*

Since the 2008 financial crash the expansion of neoliberalism has had an enormous impact on conservation policies. In this paper we look at how different social groups justify, legitimise, or oppose the neoliberalisation of nature conservation in the EU through the comparative study of different cases across Europe. We focus on cases of green grabbing, where environmental arguments are used to support the expropriation of land and resources, and un-green grabbing, where hitherto protected natures are expropriated without any pretence at “greenness”. We explore the shifting dialectics of consent and coercion apropos of new social conflicts between those who capitalise in these forms of neoliberal conservation and those who are negatively impacted. Neoliberal conservation aims to attract positive forms of engagement. Nevertheless, the neoliberalisation of nature conservation has so far been a highly problematic process. We conclude that while in the conservation field neoliberal hegemony as consent may be founded on discourses, politics or techno-science, it is dialectically intertwined with domination by force (including economic coercion) especially for countries in crisis.

## **Sport trophy-hunting as a neoliberal conservation strategy in North America. The Comcaac case on Tiburon Island, Mexico.**

*Rodrigo F. Rentería-Valencia, Central Washington University*

The use of sport trophy hunting as a conservation incentive is not at a recent phenomenon. Nevertheless, in recent years, striking developments in wildlife policy and practice have taken place worldwide, in which trophy-hunting has been accorded a prominent role among conservation models that prioritize neoliberal understanding of the environment. This new ecological ideology, as convincingly asserted by MacDonald (2005), has the capacity of repositioning community resources within a new system of meaning, altering the material realities of social relations within the community, modifying human-ecological interactions, and introducing new forms of governance that attempt to ground authority within the institutional arrangements produced through discourses centered in the notion of a global commons. This paper presents the major findings resulting from my doctoral dissertation, devoted to analyze the social effects of neoliberal conservation models in North-America through extended ethnographic research among the Comcaac (Seri), a former hunting and gathering society living along the coast of the Gulf of California, in the Sonoran desert of northern Mexico. In specific my research documented the bighorn sheep sport trophy-hunting program taking place on Tiburon Island, in order to better understand the local processes contributing to the production and performance of indigenous environmental expertise. This demanded exploring the ethical and pragmatic dimensions that determine

the ways in which indigenous youth approach a natural landscape persistently reframed under free-market logics. By exploring these issues, my research tackled the often-contradictory ways of thinking and acting that are present within contemporary neoliberal perspectives on nature — and the way local, regional and transnational actors cofound this free-market regimes.

### **Targets, broad coalitions and dissent: Neoliberal conservation in the Far North region of Ontario**

*Catie Burlando, Independent Researcher*

Land use planning is one of the venues for Indigenous communities to exert territorial rights and control over development and conservation. In the boreal region of Canada, Indigenous communities are leading land use planning initiatives to secure cultural continuity and their traditional way of life in the face of resource development and social change; access fair benefits from resource development; and enable community-led resource development. Despite significant gains, however, communities face incredible pressures to conform to industry, NGO, and state-driven planning discourses, approaches and targets, as well as regulation. For example, when it comes to the classic divisions of land into development and protected areas, First Nations face difficulties in articulating planning approaches, which are based on their relationships to the land. Shifting the planning paradigm has proven increasingly difficult in the face of large-scale conservation paradigms, which inadequately see conservation approaches as capturing Aboriginal people's relationship to the land. In this paper, I analyze how in Northern Ontario conservation organizations influenced land use planning legislation to protect 50% of the region, through a strategic engagement with private actors, First Nations and the state, and how new legislation, in turn, shifted the levels of planning for other First Nation communities in the region. I discuss how large coalitions not only support and direct policy-change, but also lead to the marginalization of ensuing conflicts and dissent which emerge at the local level in response to large scale planning targets.

### **Unravelling stakeholder participation under conditions of neoliberal biodiversity governance in Catalonia, Spain**

*Sara Maestre-Andrés (Universitat Autònoma de Barcelona), Laura Calvet-Mir (Universitat Autònoma de Barcelona & Evangelia Apostolopoulou (University of Cambridge)*

In this paper, we explore the implications of the dominance of consensual politics in the governance of protected areas. We consider the shift towards consensual decision-making as part of a larger process of restructuring biodiversity governance across Europe, including inter alia the strengthening of public–private partnerships, an expanded role for the voluntary sector, often in partnership with state/quasi-state, private/market, and civil society actors and an increased involvement of business (Apostolopoulou et al., 2014). The

latter is often coupled with processes of de-politicisation characterized by the increasing removal of the political dimension from the public terrain and its substitution by technocratic management (Allmendinger and Haughton, 2012; Swyngedouw, 2010). We explore the above described processes by analysing the participatory arrangements in the governance of the natural park of Sant Llorenç del Munt i l'Obac, located at the edge of the Barcelona Metropolitan Region in Catalonia (Spain). We pay particular attention both to the effects of the ongoing economic crisis for governing protected natures and to the role of the state in the spread of neoliberal conservation practices. The natural park of Sant Llorenç was selected as a case study because the history of its establishment and its current governance dynamics can show how the establishment of participatory arrangements can actually led to the exclusion of social actors with key roles in the management of protected areas and favour the inclusion of actors who actively promote the further economic exploitation of protected areas facilitating the neoliberal turn in biodiversity governance.

### **Neoliberal conservation and urbanisation in England: biodiversity offsets as operational landscapes**

*Andy Lockhart, University of Sheffield*

This paper looks to engage critically with neoliberal conservation in understanding the specificities of 'actually existing' conservation policies in highly urbanised countries in the global north. It looks at the proposed role of biodiversity offsets in England, where the mechanism was mooted for adoption for use in the land-use planning system from 2011, but ultimately abandoned by the end of 2014. In England, biodiversity offsets were initially envisaged by Conservative-led government as a tool for cutting through environmental regulation, deemed to be 'blocking' important development and holding up economic recovery. Combining insights from political ecology and recent work on planetary urbanisation (Brenner and Schmid, 2015), the paper positions biodiversity offsets as 'operational landscapes' in a broader in political ecology of urbanisation. It frames offsets as produced natures designed to stabilise specific and contingent forms of urban development, while at the same time representing a conceptual inversion of the 'metabolic rift' (Foster, 1999) – an eco-spatial reconfiguration where existing forms of urbanisation and development are reimagined as the necessary and only plausible drivers of ecological restoration and conservation. Neoliberal conservation theory has done much to highlight the problematic nature of efforts to reconcile economic growth with conservation objectives. However, it has had less to say about the implications of conservation activities' increasingly intimate binding together with struggles in other locations. This is especially the case in relation to economic development where biodiversity considerations per se might be secondary, as in many urban centres, away from the traditional empirical concerns of conservation studies. The paper argues this is not only an empirical gap, but a blind-spot that runs the risk of recapitulating debilitating binaries of nature/society and town/country, with potential political implications for the efficacy of critical conservation studies.

## **14: Contestations over natural and mineral resources in Southern Africa**

Convenor: Femke Brandt, University of Cape Town

This panel presents political ecologies of mining, nature conservation and agriculture in Southern Africa. The papers are based on empirical material generated through qualitative research in Mozambique and South Africa. The different cases have in common that they focus on what people are doing under conditions of neoliberalism and corporate governance of natural and mineral resources. The papers engage with themes and issues of land use and land occupations, resistance and activism, mobilization, the state and capitalism. The researchers are activists from Oxfam South Africa and the University of Cape Town.

### **Dispossession, resistance and 'hidden politics' over nature in Southern African forested landscapes**

*Frank Matose University of Cape Town, South Africa*

This paper examines 'hidden politics' that emerge from struggles against imposed forms of natural resource conservation by local people, rooted in place, social relations, culture, history and politics. 'Hidden politics' offers a different way of conceptualising such struggles, and suggests new ways forward for addressing environmental injustice, dispossession, rights and access. This paper draws from 22 years of research in southern Africa across various sites in Zimbabwe and South Africa. It offers a perspective on resource rights and access rooted in diverse local experiences. The case studies provide evidence that both rights over *and* access to natural resources are required to deal with past injustices created by conservation policies in southern Africa's forests. African states, allied with conservation agencies and private business, have consistently failed to recognise local claims and demands for land and resources. An historical, ethnographic approach reveals how local people struggle against such impositions, and generate a variety of forms of resistance. These are conceptualised as a local 'hidden politics', that intersect with the wider political-economic interests at play. It is this comparative reflection, and a combination of local and macro level explanations that offers new insights into environmental conflicts and popular mobilisation and resistance.

### **The 'rhino' in a conservationist configuration in Cape Town**

*Femke Brandt, University of Cape Town*

A central question in political ecology is how conservation and capitalism shape relations in nature and society. This paper contributes to this line of enquiry by presenting an example of how wildlife conservation configurations in South Africa mobilize resources and support for conservationists' projects like fighting the 'rhino war' against poaching and illegal ivory trade.

In using the term conservationist configuration within a political ecology approach I aim to emphasize the relational dynamics and ongoing balance-of-power battles between conservationists, trophy hunters, and the South African state, that shape the politics of nature conservation in South Africa.

The approach here is to understand the rhino and the rhino war in South Africa in the context of increased conservation practices on privately owned land and post-apartheid land reform contestations. Campaigns against rhino poaching obscure politics of land and uneven access to natural resources and legitimise continued violence against people perceived to be 'poachers'.

Data for this paper is generated through engagements with a particular configuration of resource-rich individuals connected through the Conservation Action Trust based in Cape Town. Since I published an online article in the Daily Maverick in which I presented a critical perspective on South Africa's trophy-hunting industry, this 'group' has been inviting me to exclusive and private meetings aimed at establishing and expanding a conservationist configuration.

Through analysing the way the rhino and rhino war are understood and framed by this conservationist configuration I want to show how nature conservationist practices and discourses produce hierarchical relations between humans and humans and nature. This way, a very privileged section of society controls and dominates, or at least aims to control, the environment and all living beings in it. Special focus will be on how these violent, racist and sexist relations are enacted in Cape Town's conservation configuration.

### **Traditional Leadership, Violation of Land Rights, Mining Deals and Intimidation of Land Activists in Kwa-Zulu Natal, South Africa: The Case of Makhasaneni Village**

*Stha Yeni, Oxfam South Africa*

This paper seeks to explore why traditional leaders abuse their power by giving mining companies access to land without consulting the rightful inhabitants which results in displacement of livelihoods, conflict and instability within affected villages. Furthermore, the paper looks at people's forms of resistance to mining and how traditional leaders use their power to silence and intimidate those who resist. Central argument of the paper is that traditional leaders as an organ of state abuse their power for capital accumulation while dispossessing people of their land.

Land in the rural Kwa-Zulu Natal is held under living customary law, under the administration of traditional leaders i.e. chiefs and headmen. The Western notions of ownership do not apply as individual households do not have title deeds but they have customary rights to live



on and use the land, and these rights are recognised in the constitution of South Africa. In customary law the chief or headman does not own the land and therefore in a case where people could be removed to make way for mining, they have to consent. This however has not been the case in practice.

Evidence is drawn from Makhasaneni Village located in Northern Kwa-Zulu Natal and falls within Entembeni Traditional Authority under Chief Zulu. Since 2011, land activist Mavuso together with other members of Makhasaneni village have been resisting the unannounced activities of a mining company, Jindal Africa (Pty) Ltd. Jindal arrived in Makhasaneni and began prospecting in people's fields without consulting the people who depended on the produce grown on the fields destroyed in the process. Jindal sought to establish whether the area has sufficiently high levels of iron ore to justify mining. After the prospecting began, a number of cattle and goats died from poisoned water. Ancient family graves were damaged, crop fields were destroyed and water streams became poisonous and ultimately ran dry. Villagers have managed to stop Jindal by raising their concerns with the company and the traditional leader. The prospecting is currently on hold. But while the destruction has been paused, there have been incidents of intimidation by the chief's brothers of the members of the Makhasaneni village; in particular Mavuso who has received numerous death threats.

### **Women versus Big Coal: Anti-extractivist feminist politics in KwaZulu-Natal, South Africa**

*Melissa Hansen, Centre for Civil Society (CCS), University of KwaZulu-Natal (UKZN)*

This article discusses women's activism against coal mining in South Africa. The analysis unfolds through a case study of the rural Fuyeni region of northern KwaZulu-Natal. Since the arrival of the Tende Mining Company in 2007, open-pit coal mining operations have radically transformed the landscape and ways of life for people in adjacent villages. Similar problems are anticipated nearby, where in 2014 iButho Coal put forward a proposal to operate a 14,615 ha open-cast anthracite mine, within just 100 metres of Hluhluwe-Imfolozi Park, a protected area widely known for its contribution to the conservation of the white rhinoceros (*Ceratotherium simum*). In 2015, the community campaign 'Women against mining in KZN' emerged in opposition to this proposal. Here, gendered activism is central within a broad-based coalition that includes biodiversity conservationists, and regional and international activists and campaigners against extractivism and climate change. I use an eco-feminist materialist lense – supported by a broader political ecology – to provide an account of women's activism in rural South Africa. Impacts like decreased water availability, coal dust pollution, ecological degradation, and community conflicts, have particular impacts on women, because of their roles in social reproduction – processes involving the provision of food, clothing, shelter, basic safety and health care, along with the development and transmission of knowledge, social values and cultural practices. I highlight lessons that are being learned about women as forceful social-ecological and political actors at higher

political-economic scales. In doing so, I use a critical ecofeminism to discuss these women's perspectives on the inherent sustainability challenges of extractivism as a strategy of development.

## **15: Negotiations of Plurinationality, Extraction and Environmental Politics in Latin America**

Convenors: Jessica Hope (University of Cambridge) & Isabella Radhuber (University of Cambridge)

Recently in Latin America new political projects have come forth under the banner of 'pluriculturality', plurinationality' and 'plurinational states' – most often because of active indigenous movements. In Bolivia and Ecuador plurinationality, as originally proposed by indigenous and peasant social organizations, became part of the official political agenda under their respective governments from 2005 and 2006, entangled with promises for transformative 'post-neoliberal' politics. Elected on a wave of anti-neoliberal and anti-colonial protests these governments have promised to commit to the political agenda proposed by social movements. These new governments have reimaged and restructured the state as plurinational – going beyond the recognition politics of multiculturalism to offer new forms of power-sharing. Such states should not only recognise multiple and diverse forms of social organization, but strengthen these organisations and use their demands to inform a revised state. This radical reimagining of power is entangled not only with radical new environmental discourses, which reject green capitalism and promote indigenous environmentalism, but also with intensifying commitments to the extraction of natural resources, primarily hydrocarbons.

In this panel, the papers examine the intersections and tensions between emerging agendas of plurinationality, extraction and environmental politics - to analyse key challenges and conflicts of political ecologies in Latin American countries.

### **Towards more intercultural resource regimes in Latin America's plurinational states? Change and persistence in postcolonial political economies**

*Isabella M. Radhuber, University of Cambridge*

Bolivia and Ecuador are both postcolonial countries characterized by high societal – especially indigenous – diversity and inequality; each country too relies heavily upon exports of unprocessed natural resources, in extractivist accumulation models. In this context, recent intercultural plurinational political projects formalized in constitutions, legislation and programmes seek to work towards addressing an unprecedented and intercultural pattern of resource governance, influenced by social and indigenous movements and organizations. However, although plurinationality has been recognized in the constitutional and legal frameworks of each country, the extent to which a more intercultural resource regime has been realized needs to be critically evaluated in light of the ongoing tensions between governments and indigenous groups.

This paper first examines the social movements' proposals for an intercultural resource regime in Bolivia and Ecuador and compares them to the formally – constitutionally and legally – recognized resource regimes. Second, it examines central elements of the countries' state economies in a broader political economic context, including changing commodity prices, state participation, state spending, and how national economies are situated in a global context. The analysis seeks to contribute to understanding political economy's postcolonial structure in relation to the natural resource sector and how indigenous and environmental agendas and knowledges do not have an equal footing to extractivist models.

### **Cities of black gold: staging the origins of twenty-first century socialism**

*Japhy Wilson, Manchester University*

The Millennium Cities are a series of new towns currently being constructed across the Ecuadorian Amazon, as symbols of the post-neoliberal project of the 'Citizens' Revolution'. These new towns are being built for indigenous communities with the revenues of the oil and minerals extracted from their territories. As such, they would appear to embody what the Ecuadorian government calls 'the original accumulation of twenty-first century socialism', based upon the appropriation of natural resources without the dispossession and exploitation of the peasantry. Drawing on extensive field research conducted in 2015, I demonstrate that the Millennium Cities are mere facades of modernity that conceal a hidden history of violent confrontation with indigenous communities defending their own project of petroleum-based modernization. The case of the Millennium Cities suggests that original accumulation of twenty-first century socialism should be understood, not as a radical alternative to the primitive accumulation of capital, but rather as a fantasy of origins that obscures the foundational violence of primitive accumulation itself. The peculiarly baroque modernity of the Millennium Cities is to be explained by the rent-based nature of Ecuadorian capitalism, and by their function as the set on which this fantasy is stage.

### **Do local comprehensive plans support the Kichwa of the Ecuadorian Amazon in reaching their collective rights?**

*Fredy R Grefa, University of North Carolina*

This study analyzes the political project of building a plurinational and intercultural state in Ecuador. I examine the quality of local comprehensive plans implemented in 2014, by each of the nine municipalities located in the northern Ecuadorian Amazon. These so called “planes de desarrollo y ordenamiento territorial” were developed under the process of plurinationality in Ecuador in a region where the presence of the Kichwa of the Ecuadorian Amazon nationality is the largest. This study evaluate plan quality and how each plan incorporate the basic principles of the collective rights of indigenous peoples as ordered by the 2008 Ecuadorian Constitution; the National Development Plan for Good Living; and, the Organic Code of Territorial Organization, Autonomy and Decentralization. For the nine

municipalities' local development plans, the average score for achieving the collective rights of the communities, nationalities and indigenous peoples set forth in Article 57 of the 2008 Ecuadorian Constitution, is 25.09%. A significant finding of this study is that less effort is being done by municipalities to incorporate the constitutional mandate on the construction of a plurinational and intercultural state in the planning processes, and the plurinational project might become only a label which do not allow visibility and power representation of indigenous peoples; and internal forces and structures are not analyzed from the perspective of historical and social discourses embedded in the life of indigenous peoples of the Ecuadorian Amazon. These issues undermine the rights of the Kichwa of the Ecuadorian Amazon to preserve and promote their management practices of biodiversity and natural environment that are fundamentals to continue exercising their socio-environmental life.

**Plurinationality and passive revolution: The state and struggles over resource extraction in 'post-neoliberal' Bolivia.**

*Diego Andreucci, Autonomous University of Barcelona*

In the conjuncture of a post-neoliberal shift, Bolivia's indigenous movement put forward innovative proposals for improving socio-environmental outcomes of resource extraction, as part of ambitious plans for shifting the country's development away from primary export-dependency and towards 'plurinationality'. In this paper, I analyse the reasons why, ten years on, the government of Evo Morales largely failed to turn these plans and proposals into concrete improvements. To this end, I combine a regulationist approach to resource governance with insights from neo-Gramscian state theory. Through a conceptually-grounded analysis of the Bolivian case, I make two interrelated claims. First, progressive changes in the governance of mineral and hydrocarbon extraction—informed by indigenous visions of territoriality and self-government—were followed by a process of gradual partial reversal. This reflected broader shifts in the social power balance, selectively 'condensed' into—and strategically modified by—the state. Second, the dialectics of progressive transformation and successive restoration which characterised the experience of the Morales government in Bolivia followed the trajectory of a Gramscian 'passive revolution'. After an initial phase of confrontation and partial rupture with national and transnational capital, a gradual recomposition of these class antagonisms led the Morales government to secure its political reproduction at the expense of more substantial reform, most notably in the direction of 'plurinationality'. In this light, post-neoliberalism appears as the result of a passive-revolutionary dynamic whereby some progressive elements are included in an overall process of political restoration, entailing the stabilisation and expansion of capitalist relations.

## **Extraction, revolution, and plurinationalism: rethinking resource extraction narratives from Bolivia**

*Andrea Marston (University of California-Berkeley) & Amy Kennemore (University of British Columbia)*

This paper explores "extractivist narratives" in twenty-first century Bolivia. Among scholars, the nation's continued reliance on resource extraction is often framed as evidence of the failure of plurinationalism to revolutionize economic and social relations; for Bolivian state officials, on the other hand, resource extraction is conceptualized as a necessary ingredient of an ongoing revolution or "process of change" (*proceso de cambio*). We engage the work of Timothy Mitchell and David Scott to argue that these narratives, whether voiced by advocates or detractors of resource extraction, tend to follow a redemptive narrative form that is animated by a rigid set of social categories. Drawing on fieldwork conducted in the city of La Paz and in mining communities in the tin belt around the city of Oruro, we discuss the circulation of these revolutionary narratives and challenge the stability of social actors that are presumed within them, paying special attention to the debates surrounding the development and ratification of new mining legislation in May of 2014. We conclude by suggesting that shifting attention away from a focus on revolution and towards the politics of the present—the daily negotiations of apparently "uneventful" phenomenon—might be a more fruitful entry point into understanding the relationship between resource extraction and plurinationalism in Bolivian, and more generally of extractivism in twenty-first century Latin America.

## **Testing the promises of pluri-nationality: conflict and struggle over the Isiboro Secure Indigenous Territory and National Park (TIPNIS), Bolivia**

*Jessica Hope, University of Cambridge*

This paper questions the extent to which groups can mobilize and claim revised indigenous and constitutional rights when opposing the government in Bolivia. Using a case-study approach and nine months of fieldwork data, I will examine a recent dispute over plans to build a road through the Isiboro Secure National Park and Indigenous Territory (TIPNIS). The road was begun in 2010, without consultation with those living there, and routed past pools of natural gas within the park. Opposition to the road was immediate and has been long-lasting, with the issue returning to the public arena in 2015. At points the conflict has dominated national politics and the national press, testing the strength and reach of new indigenous rights. In this paper, I focus on the social movement opposing the government to examine the dynamics of pluri-nationality in practice and analyse extractive-led development as a key site of conflict. I will focus on the conflicting ways that indigenous identity is being (re)positioned in the TIPNIS struggle, revealing its changing discursive and political power. I argue firstly that the conflicting ways that indigenous identity is being mobilized in the struggle signifies a shift in its discursive and political power and that these

changes reflect shifting development and environment priorities. Secondly, I argue that the (re)construction of indigeneity within state policy is diminishing the ability of rural Amazonian communities to both oppose the state and control the rate and pace of development in their locality.

### **The contradictory nature of crisis: Capitalism as a world ecological system. Evidence from the Chilean salmon industry crisis, 2008**

*Beatriz Bustos, Universidad de Chile*

Over the last ten years, scholars have debated on the global capitalist crisis and its implications for a new political economy. However, with the notable exception of McCarthy (2012), there has not been enough attention paid to the ecological dimensions for understanding the new order post crisis. This paper aims to contribute to the literature by discussing the connection between ecological and economic crises through an examination of the recent crisis that affected the Chilean salmon industry in 2008. While the Chilean salmon industry was considered a success story of Chile's neoliberal path, globally connecting resource-based regions with commodity markets around the globe, we identify three ecological contradictions internalized in salmon production in Chile that represented challenges for capital accumulation, and were at the core of the ISA virus crisis of 2008, and then we examine how they were solved through the institutional and political system.

Following Moore's (2011) argument that capitalism is a world ecological system, we argue that the realization crisis and ecological crisis became a single ecological realization crisis, which forced an industrial restructuring of conditions in production, thus pushing forward the new round of capital accumulation.

### **Contested Value: Propagating Alternative Discourses of Payments for Ecosystem Services in Mexico**

*Elizabeth Shapiro-Garza, Duke University*

Payments for ecosystem services (PES) approaches have been widely employed in Mexico since the mid-1990s, primarily as a market-based mechanism for forest conservation, by both government entities and NGOs and at multiple scales. These initiatives were originally promoted under the guise of the neoclassical economic discourse of PES that conceptualizes ecosystems as factories whose various outputs can be quantified and their benefits assigned an economic value and converted to commodities. More radical discourses of PES have since largely dominated, which, while incorporating the premise that ecosystem services hold value, claim that the right to decide the calculation and distribution of those values should lie not within the market, but with those who produce them. These alternative discourses reimagine payments as compensation for the sustainable stewardship and related labor of rural communities and as a means to counteract the systematic and structural inequities between rural and urban and the Global North and South. This paper examines the

production and influence of this alternative discourse and is based on participant observation in sites of contestation from 2005-2015 and interviews during the summer of 2015 with members of four of the civil society organizations in Mexico who have been among of the primary drivers of its development and dissemination and who have operationalized it in the implementation of their own PES mechanisms. I analyze: 1) the common conceptual threads in these discourses, but also the variances; 2) the ways in ways in which the fundamental elements of each discourse influences the specific design and implementation of PES projects; and 3) how these grounded discourses have influenced the larger dialogue in Mexico on PES, including REDD++ strategies, and the pathways and mechanisms by which their promoters exert influence, from violent street protests to joining the ranks of the bureaucrats implementing these programs.



## **16: Local intermediaries and the politics of resource conflict in extractive zones of India**

Convenors: Patrik Oskarsson (Swedish University of Agricultural Sciences, Uppsala) & Siddharth Sareen (University of Copenhagen)

Resource use in India's growing economy has been highlighted recently as creating multiple concerns over land when interests of industry are promoted over those of agriculture (Levien, 2012), when forests are removed in favour of mines (Kumar & Kerr, 2012), or coastal locations are seen as better suited for commercial development (Sahoo, 2014) than for sea-dependent livelihoods. Vast associated reconfigurations of land, forests and water environments are underway with highly contentious, if also variable, outcomes for dispossessed and disenfranchised resource-dependent citizens.

Local politics strongly determine actual resource-conflict outcomes within the wider frames set by state- and national-level socio-political forces. At times, social movements are able to vocalise demands in favour of local resources users, but other highly-mixed outcomes frequently occur, including those where outright violence by militias determines resource uses. This panel focusses on how local politics, including strong-arm politicians, middlemen, brokers and others, interact with other violent and non-violent groups to determine the highly contextual politics of natural resource extraction and use across India.

This panel proposes empirically-grounded papers analysing the possibilities or impossibilities of democratic approaches to resource extraction in the midst of present local or regional violence aimed at securing disproportionate benefits from resources and furthering various political agendas.

### **Discourses around logging: Framing extraction of wood from West Singhbhum's conflicted forests**

*Siddharth Sareen, University of Copenhagen*

The indigenous Ho people living in Jharkhand's West Singhbhum district have long coped with ongoing conflicts in its forests. The historical and political economic backdrop features insurgent groups and counter-insurgency operations, commercial forestry without revenue sharing with local communities, political mobilisation in the form of a 'jungle felling movement', and small-scale logging and sale of wood to meet the everyday survival and livelihood needs of forest-dwelling households. Despite the importance of wood as a resource to both marginalised populations and the Forest Department, little remains known about the informal practices that determine logging at the local level. This ethnographic study of the discourses around logging in a single block of central eastern India closely examines the views and roles of various actors and institutions involved in both the

governance of wood and politics of logging. In presenting a detailed account of how authority is perceived and produced in the negotiation and regulation of access to wood in both government-owned and village forests, this article seeks to go beyond tired accounts of state-community conflict, legal-illegal binaries, and the exploitation of marginalised groups. While acknowledging these aspects, it addresses how wood extraction is framed and justified locally, and demonstrates how this engenders and maintains a particular arrangement of wood access and logging in Jharkhand's forests that is linked to a local moral economy.

### **Brokering, muscling, manning land**

*Nikita Sud, University of Oxford*

In a land economy populated by shadows (Harriss-White, 2003) and informality (Roy, 2009), elaborate chains of middlemen, touts, brokers, and musclemen work with market actors, politicians, state officials, as well as independently, to enable exchange, documentation, and just plain possession. This paper will shed light on middlemen conceptually and empirically. Conceptually, it suggests that a focus on middlemen as middlemen, rather than just as conduits of trust (Levien, 2015), or bridges (Bierschenk et al, 2002), allows a reimagining of the debate on land from one involving property, to one concerning powers of access (Ribot and Peluso, 2003), and exclusion (Hall, Hirsch and Li, 2011). Middlemen emerge as the linchpins in this wide-angled view. Empirically, the paper focuses on Kachchh, Gujarat where intermediaries across class are working with state structures, big business and the ruling party to transform a desert "wasteland" into a zone of growth and productivity. Growth and productivity in this case are accruing to the corporate and political beneficiaries of the now-famous and highly unequal 'Gujarat model of development' (Sud, 2012), but also, importantly, to the middlemen themselves. Ethnographic fieldwork highlights the stories of the middlemen, while placing them in a wider analytical framework of the meaning, manning and governance of land.

### **Green or Golden? Framing Land Use and Growth Infrastructures in Goa**

*Kenneth Bo Nielsen, University of Oslo*

The Indian state of Goa has seen several intense struggles over land and land use in recent decades. Rampant mining, often illegal, has done considerable damage to large parts of Goa; various government regional plans for land use have illicitly sought to free up land for non-agricultural purposes; unpopular special economic zones have sought to be imposed, only to be abandoned; and tourism development along the coastline lays claim to large tracks of land, destroys protective sand dunes, and generates unmanageable amounts of waste. What Robert Newman wrote thirty years ago – that capital in Goa is formed primarily through the destruction of land, and not from the careful use of it – thus rings equally true today. And significantly, all these initiatives (and many others) have met with considerable popular resistance.

Against this backdrop, this paper analyses an ongoing controversy over the acquisition of app. 2,250 acres of land in Mopa in north Goa for a new greenfield international airport. The building of greenfield airports is part of a larger, national policy emphasis on so-called growth infrastructures that are, for example, the key to the much-promoted 'Make in India' programme that seeks to transform India into a globally recognised, innovative, world-class nation. The materiality of such growth infrastructures facilitates circuits of capital by allowing for the exchange and circulation of goods, ideas, waste, power, people and finance; but, importantly, it simultaneously conjures up new aesthetic and affective desires and possibilities and fundamentally reconfigures relationships with land and resources by moving people away from agrarian mores and alternative possibilities for development. The paper analyses how the proponents and the opponents of the airport have used these potential desires, possibilities, and reconfigurations of land-based identities in framing their agendas.

### **Landscapes, Metabolisms and Livelihoods: A Political-Industrial Ecology Analysis of Jatropha Biofuels**

*Jennifer Baka, London School of Economics*

Political-industrial ecology is an emerging sub-field of human geography that seeks to simultaneously analyze the biophysical and political dimensions mediating human-environment interactions. I argue that the strengths of each field – in depth analysis of the material and energy flows over the life cycle production, in the case of industrial ecology, placed based analysis of the politics of resource access and control, in the case of political ecology – address the deficiencies in the other. Further, I evaluate how the geographic concept of landscape – a way of seeing the world and the ecological concept of metabolism – the material and energetic throughput of production can be used as bridging concepts to connect the two fields and to forge more inclusive, environmentally just energy pathways. I develop the analysis through a case study of Jatropha biofuel promotion in South India. Jatropha biofuels have been widely promoted within India and elsewhere throughout the developing world over the last two decades because of the biofuel's alleged low carbon footprint and carbon debt in comparison with other biofuel feedstocks. Yet, these industrial ecology profiles do not reveal the land use struggles engendered by Jatropha promotion as a pre-existing *Prosopis* biomass energy economy in rural India has been uprooted, creating rural energy insecurity in order to make space for 'sustainable' Jatropha. In combination, a political-industrial ecology analysis of Jatropha unveils the visions of 'sustainable' energy provision embodied in carbon footprints/debts and the class struggles and uneven distribution of environmental costs and benefits that results when these visions are inscribed in rural communities.

## **National energy demand meets local resource politics in the transport of coal at the North Karanpura Coalfields, India**

*Patrik Oskarsson, Swedish University of Agricultural Sciences, Uppsala*

This paper discusses the politics of coal transport infrastructure in a major coal mining area in the state of Jharkhand in central-eastern India. In this area the need to move millions of tons of coal has not excluded a multitude of transport modes, by rail, truck and cycle, which each having its specific local political economy. The railway is centrally located in the mining settlement and supposedly under heavy guard. But armed gangs can nevertheless extort major sums of money, presumably with political support, to allow coal destined for private companies to leave the loading station. The thousands of coal trucks which leave the area each night are more flexible than the railway and can take a number of exit routes to serve a wide range of customers using coal officially sanctioned as legal as well as illegal, and taking routes similarly labelled legal along the main roads, or via illegal tracks through the forest. Left wing extremist groups are here crucial in ensuring passage through the forests while other groups control the main roads. On the sidelines of these two mechanised modes of transport are the coal cycles, which despite relying on human muscle power, transport significant amounts of coal scavenged from mines, the railway tracks or truck routes into nearby cities for household and small business needs. The multiplicity of coal transport options in the North Karanpura coalfields thus display an impressive fluidity and informality despite the strong official rhetoric of technical efficiency and policy preferences for private investments and market-based, large-scale solutions. Reasons for this are seen to reside not only in high levels of public protest relating to land acquisition for such infrastructure but also in the possibilities deficient infrastructure affords for influential actors to extract rents for safe passage of coal out of the mines.

## **17: Political Agency at the Grassroots and Alternative Development Practices**

Convenors: Michiel Köhne, (Wageningen University), Monique Nuijten, (Wageningen University) & Elisabet Rasch (Wageningen University)

The past decades we witness the emergence of a multiplicity of critical grassroots initiatives around specific topics such as food, energy and housing. We argue that these initiatives are part of a widespread discontent across the globe with respect to the dominant economic and political order and the human and environmental damage it produces. We consider the construction of alternative development practices as a political activity per se, as these initiatives imply the transformation of relations of power at the local and global level.

Many of the contemporary grassroots initiatives express values of solidarity with and respect for people and nature that contrast with notions of individual responsibility and market-led economic growth characteristic of currently dominant capitalism. In addition, an increasing number of people does not identify with formal politics and law because they feel the political system does not give them any voice. We argue that in the process of these struggles, these grassroots initiatives change people's own sense of their political agency and produce new political subjectivities (Lazar 2012: 345).

In our view, these grassroots initiatives have important implications for development studies. In fact, these initiatives are a form of development that steers towards a fundamental political change, not in only in developing countries but all across the globe.

This panel brings together papers that present initiatives at the grassroots in different parts of the world. Papers address three questions:

- 1) How do local actors engage in critical grassroots initiatives, such as movements to solve problems around housing, food policies and energy supplies?
- 2) How are such practices and experiences reflected in the creation of new subject position of the participants?
- 3) What are the implications of these contemporary grassroots initiatives for our thinking about development?

### **Security and development nexus from below: Experiences from community police in Guerrero, Mexico**

*Merel de Buck, University Utrecht*

Community police groups have shaped the socio-political landscape of rural Guerrero for over the last two decades. These organisations have obtained fame by their engagement in security practices based in indigenous normative systems. Besides the protection of

communities against drug violence, these organizations have more recently become involved in alternative developmental practices. In a region marked by extreme levels of marginalization and increasing neoliberal development like mining projects and mega dams, the amplification of community politics stirs new political subjectivities in the region.

Distinguishing the fields of development and security is increasingly presented as dichotomous (Gledhill 2015, Mora 2015). Whereas academic debates predominantly focus on the way development agencies and national institutions merge development with security concerns, experiences in Guerrero require the study of the development and security nexus from below. Hence, this paper analyses the logic and imaginary of alternative development practices by community police and the consequences for the reconstruction of power at the local level.

The centrality of self-directed development in discourse and practice of recently emerged community police groups profoundly defines their political agency. The rather mainstream character of the development concerns raised by the organisations creates operational space for their more radical armed practices, otherwise easily criminalized. At the same time, the successful local appropriation and negotiation of development projects with government agencies highly depends on security achievements of the same groups, since providing for safety generates legitimization to claim more development funds. By navigating within these two fields, these organisations experiment with the decentralization of power in which development is instrumental, as well as a subject of contestation.

### **Cooperation or Confrontation? How grassroots environmentalists green the Chinese State?**

*Coraline Goron, Erasmus Mundus GEM -University of Warwick (UK) and Université Libre de Bruxelles (Belgium) Junyang Wang, Fudan University (China)*

The adoption of the concept of “ecological civilisation” as the new norm of the Chinese Party-State official developmental aspirations has been seen as a victory for China’s environmental movement. How civil society contributed to this change, when policy making in China is unanimously perceived as a top-down process? In China’s authoritarian context, civil society has developed multifaceted interactions with the state. This paper aims at shedding light on this diversity based on the different strategies of environmental activists. It argues that these different relations to the Power shape the way bottom-up influence takes place in China. We propose that a basic division between cooperation and confrontation as a starting point to study different pathways for China’s environmental civil society’s (non-governmental NGOs) to influence the state. On the one hand, large numbers of environmental NGOs have engaged in a diversity of cooperative relations with the state, endorsing a role of “prince counsellor” and working together on state-supported projects. On the other hand, the number of environmental protests has risen exponentially in recent

years, ranging from massive mobilisation around dam projects to the stubborn rejection of PX chemical plants. The political reaction to these bottom-up inputs has varied significantly over time. The paper reviews evidence that both strategies have impacted on the government's increasing acknowledgement of environmental issues. The argument mobilises two branches of literature, that on social movements and on NGO in the Chinese context. It finds that cooperation is effective by playing on "consultative authoritarianism" mechanisms unleashed by the "scientific outlook on development"; confrontation, on the other hand, is effective when it manages to harness the state's anxiety over social stability.

**Up with Trees; Down with Capitalism': Tree sitting activists becoming 'nature' and 'future' while opposing the expansion of lignite mining in Germany.**

*Stine Krøijer, Copenhagen University*

My paper takes its point of departure in the livelihood and political practices of a group of German tree sitters who are opposing the expansion of lignite mining in Germany by occupying a forest. Over the past four years, the activists have developed a political practice and mode of living, which is entangled with and carefully modeled on nature (animals & trees in particular). While seeking to strip off civilization and withdraw from capitalism, new political subjectivities emerge that are 'intensely natural' and 'of the future'. In dialogue with my previous work on political activism among anarchist groups in Northern Europe (Krøijer 2015) and ongoing fieldwork in the Ecuadorian Amazon, I discuss how these practices challenge conventional ideas and temporalities of development.

**Political Art and Social Organization in Buenos Aires, Argentina**

*Elke Linders, University Utrecht*

In what ways do artist-activist groups in Buenos Aires, Argentina, engage in the (de)legitimization of cultural meanings attached to objects, practices and experiences? And to what extent do their politico-aesthetic practices contribute to generating new social and political imaginaries? The current political landscape in Buenos Aires forms an interesting context for the comparative analysis of the cultural politics of artist-activist groups which have different aims, strategies and positions in civil and political society. The mural-paintings, theater plays and iron statues made by the groups that form part of this study are often referred to by their makers as 'excuses' or 'trojan horses' that permit them to engage in socio-political organization. In what ways do these groups envision and deploy art as a political tool for creating new imaginaries without reducing 'the artistic' to its (political) functionality nor reducing 'the political' to a mere adjective applied to an artistic genre?

## **‘The natural park has ruined the Sierra Norte.’ Policies, experience and discursive condensation in the Andalusian Highlands.**

*Ernesto Martínez Fernández, Pablo de Olavide University, Seville*

In order to reverse the Andalusian highlands structural crisis, the autonomous government, towards the end of the 1980s, launched an alternative revolved around two pillars. On the one hand, an important part of those territories were declared protected areas, with the aim of joining environmental conservation and a progressive “touristification” of their economies. On the other, a changing Common Agricultural Policy (CAP), awaited to focus its support on extensive farming and rural diversification, would guarantee the protection of the still crucial agriculture and fund the required tourism infrastructures. The implementation of this project, however, has proved to be less successful than expected. After twenty-five years, urban demand is still not enough for turning rural tourism a solid substitute to agriculture. And, regarding the latter, although going on complementing the farmers' incomes, the CAP decoupling from productivity has led to the abandon of numerous works and, also, holdings. A trend intensified by the protected area regulations, which have brought the limitation of some more works.

This process, of course, have not been free of conflict. The most harmed sectors - small farmers and day-labourers- question their marginalisation through a rich repertoire of everyday resistance, in which discourses play an important role. One of their significant points is a “confussion” about the institutions responsible for the specific measures that affect them. In that sense, the most are attributed to the protected area intervention, despite coming also from CAP and other rural regulations. Here, we propose to discuss this discursive condensation, something that we will do by going deep into the ways how people experience agro-environmental policies on the ground. Through this ethnographic example, we will highlight the role of experience in modelling both resistance and consent to the State.

## **Political Energy at the Grassroots: contestation, resistance and the development of alternatives by activist groups in Spain**

*Monique Nuijten, Wageningen University*

In a time of turmoil and crisis for a large part of the world population, and increasing environmental concern, a variety of initiatives have emerged at the grassroots, based on values which differ from those of neo-liberal capitalism. A growing number of people perceive traditional politics and state law as alien and corrupt, only serving a global elite. In this climate, political activism flourishes. Some activists focus on locally based, green initiatives, while others strive for a radical change of the capitalist world order through collective actions that regularly bring them into conflict with state law.



This paper examines how political activism developed in Spain after the economic crisis of 2008 and the subsequent implementation of severe austerity measures. I look at different activist initiatives, with a special focus on the PAH (platform of mortgage victims). In general, political activists in Spain oppose the formal political system and question its legitimacy. They contest the existing order through the construction of new interpretative frames around justice, citizenship and state responsibility. In this way, they actively engage in the shaping of new subject positions. The paper zooms in on the discourses and practices of the PAH and several of its activists in order to shed more light on these new interpretative frames and subjectivities.

### **Practices and Imaginations of Sustainable Energy in Transition in the Dutch Noordoostpolder**

*Elisabet Dueholm Rasch & Michiel Köhne, Wageningen University*

In our paper we analyse how local practices of everyday life energy solutions relate to perceptions of large scale policies of energy transition on the one hand, and the continuing use and extraction of fossil fuels on the other. Dutch sustainable energy projects, such as windmill farms, are often resisted by residents that fear the impacts of such developments for their living environment and distrust the involved companies and politicians. At the same time at the local level people also reject fossil fuels and develop initiatives of sustainable energy use and production.

By way of a case study in a Dutch municipality, The Noordoostpolder, where residents have successfully resisted the extraction of shale gas and where the horizon is dotted with windmills, we argue that the ways in which people engage in sustainable energy practices and negotiate sustainable energy projects entail more than choosing for a green energy provider or having their house undergo an energy-makeover. We argue that such engagements are anchored in socio-political relations and histories of place-attachment and that engaging in sustainable energy practices should be understood as an act of citizenship. Local practices and imaginations of sustainable energy then become 'development alternatives' that shape the way citizens negotiate their relation to the Dutch government and its energy policies.

In our analysis we bring together small-scale sustainable energy practices and imaginations, local political engagement and place attachment. In doing so, we look both at tangible energy practices around energy saving renewable energy, as well as at less tangible issues of belonging, place-attachment, and meanings of 'landscape' and 'horizon'; issues that are crucial for understanding how people relate to the transition to sustainable energy.

## **Discussing grassroots resistance movements to the post-political consensus and “Radical Imaginaries” in the developing and developed nations**

*Ramazan Caner Sayan & Aaron Vansintjan, University of Dundee*

It is widely assumed that modernization discourse is a tool primarily used by the governments of developing nations when justifying political agendas and development projects. Conversely, developed nations will often be seen as champions of neoliberal transitions, relying on austerity measurements as the preferred justification for their further development. Yet, many governments employ *both* modernist and neoliberal discourses to justify developmental agendas, shut down alternative politics, control affected populations, and convert everyday lives into “apolitical” domains. Despite this, resistance to development projects and, broadly, to neoliberalization, is becoming part of people’s “everyday lives” as seen in numerous research and media coverage. In these modes of resistance, “apolitical” residents challenge those “governing rationalities”, offering radical imaginaries going beyond modernization, privatization, and the growth consensus. However, it is not clear from the literature how people resist differently to development in the North and South.

In this article, we employ a discourse analysis of how governments and ordinary citizens articulated the need for and resistance to these projects. We look at two case studies of successful resistance movements to hydropower development in Western Turkey and highway construction in Antwerp, Belgium in which we found that governments used both neoliberal and (neo)modernist discourse to justify development, shut down alternative politics, and control affected populations. These case studies suggest that (neo)modernist and neoliberal discourses can be intertwined (and challenged) even in developed countries, which are often assumed to be “fully modernized”. We conclude that resistance to the post-political consensus may be more similar across North-South divisions than often presumed, and that more research is needed to compare how communities in both successfully resist development projects, in the context of post-political forms of control.

## **Community leaders, hope and ‘the part of no part’: Using Žižek and political ethnography to theorize slum politics in Recife, Brazil**

*Sven da Silva & Pieter de Vries, Wageningen University*

Inspiring scholarly attention has been paid to the phenomena of slums since the beginning of the century. Yet, the inconsistent social- and spatial composition of slums in cities has been insufficiently theorized, and their political importance has often been either neglected, discarded or romanticized. In this article we conceptualize notions such as ‘hope’ and slum politics, and we argue that slums can be seen as spaces of hope and possibility. The paper is based on ethnographic research in a slum Recife, Brazil that has become a primary location of gentrification processes, where an incipient popular middle class coexists with the very poor. Special attention is paid to a community leader that symbolizes the inconsistency of

the urban situation in his connection to an intimate, yet foreign, 'part of no part' of the slum, where the very poor live in stilts, and whose being part of the slum is contested. For the community leader this part remains a symbolic given, that embodies both hope and despair

## **18: Conflict and Cooptation in Political Ecology. Discursive Strategies and Material Practices within ecological struggles in Latin America**

Convenor: Anne Tittor, University of Bielefeld

Land grabbing, extractivism and the commodification of nature are discussed and criticized all over Latin America. Social movements are important actors in this field, contesting the narratives of development propagated by governments and international institutions, as well as actively resisting displacement and dispossession. However, not everyone within the territories they defend, and even less within the wider public of their countries, shares their opposition against nice-sounding 'development' projects. A closer look at examples such as palm oil expansion, hydrocarbon projects, mining, wind energy parks and large-scale infrastructural projects shows that governments and companies often undertake a host of efforts to convince the local population: PR campaigns, co-optation of key actors in local communities, or even direct material benefits. Our panel focuses on the processes and strategies of such cooptation, taking stock of the arguments, narratives, promises and material benefits used by governments and firms to convince the public in different cases. Questions to be addressed are: What kind of consultation took place, what participation in decision-making about the projects was offered or simulated? How do movements handle situations in which communities are divided about "green development", sometimes spurred by material benefits offered to part or all of the community? Which theoretical tools are useful for analyzing cooptation and persuasion strategies?

### **Participation or dispossession by other means? Participation strategies in the context of development projects in Brazil**

*Maria Backhouse, University of Jena*

In the last ten years Brazil has been investing in large infrastructure, energy and agricultural projects without precedent in its national history. At the same time, the resource-rich country is commonly known for its progressive environmental and social legislation which regulate the implementation and the operation of different types of infrastructure and related enterprises. They require social and environmental impact assessments which include participatory approaches such as public hearings or dialogues with affected communities. However, these approaches are increasingly questioned by communities, social movements and researchers as contradictory and pseudo-participatory since they rarely change or stop large-scale planned projects.

In the presentation two examples of the participatory approaches of large projects in the Amazon Basin will be outlined and discussed: the public hearing processes in the context of the hydroelectric dam project at the Tapajos River, and the dialogues with affected communities in the context of state supported palm oil expansion. Drawing on the re-

interpretation of primitive accumulation by Massimo de Angelis, it will be argued that in certain circumstances participatory approaches are not only a conflict management strategy, but represent new, apparently non-violent, means of enclosure and dispossession.

### **Space for critique and discussion?! The consulta indígena on a large-scale wind energy park in the Mexican Istmo de Tehuantepec.**

*Rosa Lehmann, University of Freiburg*

On the Isthmus of Tehuantepec, in the Mexican state of Oaxaca, more than 20 wind farms have been built since 2004. Questions over the legality of the projects and the unequal distribution of benefits has led to an intensification of protests in the years 2011-2014. Thus, government institutions decided to conduct a *consulta indígena* based on international legal conventions for the next wind farm to be built in the region.

The presentation briefly overviews the conflict on the Isthmus, but will focus primarily on the process of the *consulta indígena* in Juchitán, where the company Eólicos del Sur plans to construct a 132 MW turbine wind farm proposed for disputed terrain. The *consulta indígena* became a space of ambiguity since it opened an important and previously unheard of site of debate. However, it demonstrated what happens when international norms and legal standards come face to face with histories of structural violence, and the antagonistic rationalities and logics of corporations and state institutions. While one might conclude that the process of the *consulta* in Juchitán is merely a political mechanism being used to legitimize the process of green grabbing on the *Istmo*, we want to also consider the participative and generative qualities of the process.

### **Nicaragua's Interoceanic Canal project: Promises, conflicts and contestation**

*Anne Tittor, University of Bielefeld*

In 2012 the Government of Daniel Ortega in Nicaragua decided to build a canal connecting the Atlantic to the Pacific with funding from a Hong Kong-based private investor. This mega project of more than 270km in length and projected cost of at least 40 billion US-\$ will transform Nicaragua in many ways. If the plan is ever actually put into effect, the new interoceanic waterway will cross indigenous land and national parks, and it will massively interfere with the local ecosystem. It will aggravate pre-existing land conflicts between local actors who have very different understandings of how land should be used in the region and of who should decide about it: small-scale agriculture, palm oil monocultures, extractivism, collectively used land of indigenous and afro- descendent groups or nature preservation.

The case study is based on an analysis of Nicaraguan and international newspaper articles, press releases and my own interviews with some of the actors involved, conducted during field research in Nicaragua between September 2014 and January 2015. By investigating the understandings of nature advocated by different actors and social groups, the paper

particularly considers the social inclusions, exclusions and developmental expectations linked to the project. The paper analyses how different actors frame their promises and predictions about possible consequences of the canal project. Special emphasis is put on the question of which kinds of knowledge are presented to give credibility to the different scenarios, and which kinds of strategies of arguing, threats and co-optation are used to convince others.

**State strategies to undermine community resistance: Analyzing public participation about hydrocarbon projects in the Peruvian Amazon (2007-2012)**

*Almut Schilling-Vacaflor, Anna Hujber, Riccarda Flemmer (GIGA, Hamburg)*

In this paper we present our ample study of participatory events on hydrocarbon blocks implemented by the Peruvian state in the Amazon and Puno between 2007 and 2012. We provide a fine-tuned analysis of different degrees and types of conflicts between the responsible state entity for carrying out consultation and the involved local populations. The paper particularly focuses on state strategies to undermine community resistance, such as the distribution of biased information, the imposition of knowledge, the spread of development promises, the strategic invitation of non-critical leaders, the avoidance of confrontational local organizations, and the delegitimization of critique and protest. Beyond the identification of general strategies for taming contestation, the paper illustrates in concrete examples the state entity's differentiated responses to different levels of community opposition. For analyzing the state's forms of exercising authority towards local populations, we theoretically draw on research into participatory development and contentious politics as well as on James Scott's (1990, 1998, 2008) work about confrontation between the powerful and the powerless. The findings presented here are an important contribution to research on resource conflicts and local mobilizations, especially because previous studies have largely focused on violent conflicts and protests, while neglecting more subtle forms of resistance. We argue that visibilizing these dynamics is central in order to reveal their profound implications for the rights of marginalized local populations and for understanding the roots of socio-environmental conflicts.

## **19: Contestation, Participation and Violence in Indonesia's Oil Palm Industry**

Convenors: Rosa de Vos (Wageningen University) & Izabela Stacewicz (University of Reading)

Indonesia's current haze disaster, primarily caused by large-scale land conversions for oil palm monocultures, urges us to study the drivers of oil palm expansion and the contestations that occur in production areas. Ongoing economic liberalization in Indonesia encourages oil palm companies to expand into new production areas, including those renowned for their rich biodiversity and natural resources upon which local people depend. This has led to different forms of violent contestations between companies, authorities, and local supporters and opponents of plantation plans. Such contestations, characterised by unequal power and resource access, may be considered manifestations of processes of late capitalism. This panel proposes to inquire about the variety of responses of local people whose lives and lands are incorporated into, and transformed by, the oil palm industry. We aim to discuss the complexity of negotiations over land tenure, land use change, access to resources and labour, and the challenges and opportunities for people in oil palm production areas to secure their interests and rights.

The panel will bring together both conceptual and case study perspectives, addressing a number of critical questions: What are the roles of different actors in the oil palm industry? What can socioenvironmental activism contribute to addressing the problems on the ground? What opportunities do market-led sustainability standards, such as the RSPO, provide for local people to secure their rights, and what are their contextual limitations? This double-session panel discusses ethnographic material on Indonesia's oil palm industry regarding processes of contestation, participation and violence, to shed light on the politics of this high impact rural transformation. The first session will focus on power relations in interactions between companies, governments and local communities. The second session discusses how people give meaning to oil palm contestations related to identity and interactions within communities. We will close the panel with a plenary discussion on the current challenges and opportunities for local communities in oil palm areas.

Sub-themes: ethnography, access to resources, sustainability, sustainability standards, socioenvironmental activism, identity, land grab, labour

### **The Capacity of the RSPO to Address Land and Labour Rights Issues: Local Participation in Social Impact Assessment in West-Kalimantan**

*Izabela Stacewicz (Reading University, UK)*

Commodity roundtables aim to address sustainability problems associated with commodity production on a multinational scale through voluntary certification standards. Due to their private nature, standards have been conceived as examples of what Peck and Tickell (2002)

interpret as 'rollout' neoliberalism, whereby, on a macro-scale, the market is 're-regulated' through voluntary mechanisms which rely on responsible individuals and corporations. However, reflecting their growing popularity, roundtables have been portrayed as providing multiple stakeholder groups with equal positions in negotiations, implying that they offer accountability, transparency, legitimacy and inclusiveness through participation.

In order to mediate the social impacts associated with palm oil production, the Roundtable for Sustainable Palm Oil (RSPO) requires grower companies to conduct participatory Social Impact Assessment (SIA). This paper presents findings of a study that explores: (1) the nature of participation in SIA processes in the context of the RSPO, and (2) the extent to which SIA practices are effective in addressing land rights and labour rights issues. The study is informed by fieldwork in Sambas, West-Kalimantan, Indonesia, with local communities, plantation workers, and smallholders, triangulated with interviews with grower companies, auditors and SIA consultants, social non-governmental organizations and unions. Examining local enactments of the RSPO standard challenges the assumption that the roundtable offers accountability, transparency, legitimacy and inclusiveness through participation. Although the RSPO intends to standardise sustainable practices, the way in which SIA is perceived and conducted is highly inconsistent, leading to the exclusion of affected people. Participation in SIA is found to be at most, consultative and top-down, reflecting and consolidating power imbalances between local communities, companies, and local authorities. Barriers to the effectiveness of SIA to address land and labour rights issues include the capability and will of: (1) companies to comply, (2) consultants to conduct assessments, and (3) auditors to complete adequate checks. This is further mediated by contextual and structural conditions. In its current form, the RSPO has limited capacity to address land and labour rights through participatory SIA in West-Kalimantan.

### **Palm oil expansion and land conflict in Southern Burundi**

*Rosine Tchatchoua-Djomo (African Studies Centre, University of Leiden)*

Land issues in conflict and post-conflict settings are very diverse and often result from reshuffled land relations. Among these issues are state agricultural development companies – farmers conflicts in several developing countries. In Southern Burundi, there are tensions between the Palm oil national company and small scale farmers whose land has been targeted for palm oil production since the 1980s. This article presents a case study of a local conflict in southern provinces of Burundi that resulted in the expropriation of many households and no compensation for families whose land has been occupied and redistributed by the state authorities. To understand the conflict, it is necessary to look at the history of displacement and land use in the area as well as national land tenure and agrarian policies. Attempts at agricultural modernization are connected to the history of politics and violence and continue to foster hopes and tensions within local communities. The government aim to expand palm oil cultivation on rural land, but property rights are not



secured for small scale households and there is unequal power share in negotiating land access and land use, leading farmers to search for alternatives elsewhere through informal land transactions. Access to land for food crop production is decreasing due to expansion of palm oil production and the promotion of monocropping. The main room for manoeuvre that small farmers still possess to counteract this trend is their ability to perform land sales on their holdings out of the control of state officials in order to get access to small land plots elsewhere for food crop farming. However this practice is undermining national effort to foster rural land registration and trust building between state and citizens. The lack of involvement of small farmers in agricultural development policymaking and land use constitutes a driver to violence.

**‘We’ll turn your Water into Coca-Cola’: Oil Palm Plantation Expansion and Mechanisms of Land Control in West-Kalimantan**

*Rosa de Vos, Wageningen University*

During the past decade, vast areas of agricultural and forest land in coastal West-Kalimantan have transformed into large-scale monoculture oil palm plantations. While farmers in this region have produced tree crops for the global market for at least a century, the introduction of oil palm plantations has led to violent conflicts between companies and local land-owning communities, as well as to volatile tension within communities. Meanwhile, market-led sustainability standards oblige companies to respect the free, prior and informed (FPIC) consent principle during the process of acquiring land for plantations. Using ethnographic material on conflicts about oil palm plantation projects, this paper analyses the mechanisms of land control that are deployed by plantation companies. While standards such as the FPIC principle assume a (more or less) transparent process of negotiations between companies, supporters and opponents of plantation projects, this paper demonstrates that processes of land acquisition are characterised by an atomization of activities in time and place. Direct interactions between company staff and local communities are rare. This makes land acquisition processes difficult to recognize and respond to in a timely manner. The paper presents two cases of conflicts that occurred in Malay communities that are dependent on smallscale rubber and copra production. The two sister-companies in these cases deployed mechanisms of land control that involved driving many little wedges between supporters and opponents of plantation projects; between village authorities and villagers; and between regional governments and villages. The companies used promises of community development and personal benefits, as well as threats of violence, and exclusion of public services to gain support and break resistance. This paper aims to contribute to the discussion on the role of standards for land acquisition by providing an analysis from what actually happens at the micro-level.

## **Palm Oil Expansion and the Transformation of Totem in West-Kalimantan**

*Pujo Semedi (Gadjah Mada University, Yogyakarta, Indonesia)*

Following Durkheim (1915) the population of rural Kalimantan perceives *durian* (*Durio zibethinus*) and honey *ketapang* (*Terminalia catappa*) trees, to be totems, defined as: “*The species of things which serves to designate the clan collectively ...*”. *Durian* and *ketapang* trees grew in old hamlet sites (*tembawang*) or swidden lands that eventually became secondary forest (*bawas*). These trees provide people with the ability to trace their kinship back seven generations or further, to their ancestors who planted the trees. People are also able to trace the younger kinship branches, because the right to harvest durian fruit and wild bee honey is inherited by direct descendants. By observing the spatial distribution of *durian* groves and *ketapang* stands, people can tell and retell history of their ancestors’ migration before they finally settled in the current hamlet. This paper discusses the socio-cultural consequences of agro-ecological transformation in rural West Kalimantan when, one by one, durian groves and *ketapang* stands are cleared to give space to palm oil fields; when tree of kinship is cut down in exchange of a tree of cash; when society undergoes a great transformation from pre-capitalistic economy where participation in the market was optional, to capitalistic economy where integrating oneself to market system is obligatory (Li, 2015). Numerous work has been dedicated to analyzing social, economic and political tensions that arise from introduction of palm oil in West Kalimantan, between small holding farmers and plantation companies, or between local farmers and migrants from other parts of the country. So far, however, internal tensions and conflicts within groups the local farmers are left unstudied. Also unstudied is how the Dayak and Malays maintain their imaginary kinship trees when the objective, real, trees on which the imaginary kinship tree is anchored, are cut down and gone.

### **The political and legal ecology of the oil palm industry and orangutan conservation in Borneo**

*Holly Jonas (Ridge to Reef), Nicola Abram (University of Queensland), Susan Lusiana and Kiyoko Sophia Nakano (Project research assistant)*

Borneo is the third-largest island and home to one of the oldest rainforests in the world and an extraordinary diversity of indigenous peoples and ethnic groups. It is comprised of the Malaysian states of Sabah and Sarawak, the Indonesian provinces of North, East, South, West and Central Kalimantan, and the sovereign state of Brunei. Among its thousands of species is the endemic and endangered Bornean orangutan (*Pongo pygmaeus*), whose habitats have been significantly reduced over the past decades by logging and industrial agribusiness (primarily oil palm and plantations for pulp and paper). On the one hand, a range of policies, laws and top-down development programmes have contributed to large-scale deforestation and degradation; on the other hand, Borneo’s rainforests and wildlife are promoted as a major draw for tourism and the emblems of ambitious conservation

commitments. This paper will present the results of multi-faceted research on the interface between large-scale agribusiness and orangutan conservation in Borneo. It considers the extent to which historical and current legal, policy and institutional frameworks (and embedded power dynamics and implementation thereof) present opportunities or constraints for orangutan conservation in the face of the oil palm industry and related investment chains, and identifies legal levers and other innovative approaches such as Ecosystem Restoration Concessions that can be effectively mobilised for conservation. Using a combination of spatial mapping and inventories of oil palm concessions and investments, it highlights the geographical overlap between areas currently targeted for oil palm and areas of importance for orangutans, including existing habitats and known distributions and opportunities for corridors and stepping stones. It will also discuss the practical responses emerging from governmental, non-governmental and private sector actors to avoid, minimise, remedy and offset the impacts of oil palm on orangutans, with a view to scaling up, institutionalising and/or legislating for effective approaches.

### **Tropical Forests and Oil Palm Development: Conflicts, constraints and opportunities in a floodplain landscape in Sabah, Malaysian Borneo**

*Nicola Abram (University of Queensland), Marc Ancrenaz (Borneo Futures Initiative), Holly Jonas (Ridge to Reef) and Kiyoko Sophia Nakano (Project research assistant)*

Lowland tropical forests are increasingly threatened with conversion to oil palm (*Elaeis guineensis*) as global demand and high profit drives crop expansion throughout the world's tropical regions. Understanding the nuances of landscape level constraints for oil palm, land use conflicts and conservation opportunities is essential to help ensure more sustainable land use in often biodiversity rich environments. We will present a fine-scale, regional study that investigates spatial, economic, and policy components of forest conversion to oil palm within a tropical floodplain in the Lower Kinabatangan in Sabah, Malaysian Borneo. The Kinabatangan ecosystem harbors significant biodiversity with globally threatened species, including a significant but decreasing population of the Bornean orangutan (*Pongo pygmaeus*). This region has suffered significant forest loss, resulting in a fractured and fragmented forested landscape. We demonstrate that the landscape is highly heterogeneous in its biophysical contexts, constraining oil palm cultivation in seasonally/tidally flood prone areas. However, poor land use planning and outdated policies and laws have to date facilitated expansion of oil palm even in areas unsuitable and unprofitable for this crop. In addition to sharing lessons learnt, we explore new policy options for mitigating further impacts on the forest ecosystems and on the Bornean orangutan specifically, and pose practical solutions for the oil palm industry and government to promote better forest connectivity and habitat protection in this region.

## **Green Enough for Green: Assembling the Green Economy in East Kalimantan, Indonesia.**

*Zachary R. Anderson, University of Toronto*

In Indonesia the 'green economy' has emerged as the dominant set of discourses and policies framing national environmental and development strategies. In resource frontier spaces across the country the 'green economy' resonates as a means through which to negotiate national-level commitments to reducing greenhouse gas emissions and protecting forests, while pursuing continued economic growth, often tied to resource extraction, particularly oil palm plantation expansion. This paper analyzes the processes of translation and negotiation underlying this shift in the district of Berau, East Kalimantan, Indonesia. I discuss the emergence of new coalitions of actors using the analytic of assemblage to trace the policy narratives and discursive strategies these coalitions employ to justify their alignment with, or resistance to, the concept of the 'green economy', and to enroll the support of other diverse actors, while managing their expectations. I then analyze the underlying mechanisms of the shift towards a 'green economy', including changes in legislation, funding allocation, and forms of expertise to show how the emergence of the 'green economy' is actively shaped through the practices and priorities of involved actors. I question the construction of the green economy as an apolitical policy solution, arguing that rather than representing an alternative to the resource extraction economy as it has existed, the emergence of the 'green economy' in Berau serves as a vehicle for the circulation of technocratic and capitalist approaches to climate change, which do not fundamentally address the structural conditions leading to environmental destruction and social inequality.

## **The violence of flexibility: legal reforms, policy reforms and power over Indonesian forest lands in the period of President Joko Widodo**

*Paul K. Gellert, (University of Tennessee) & Andiko (National Forest Council Dewan Kehutanan Nasional Jakarta )*

In this paper, we critically examine the populist direction of policy reforms of Indonesian President Joko Widodo and the real effects of legal reform on forests lands and people. Based on innumerable and contradictory laws and regulations, the forests of Indonesia continue to be logged and converted with little regard for the rights and livelihood of peoples living in (and near) the forest. In the period of democratic reform and decentralization since 1998, there have been many overlapping, permits (*izin*) for oil palm plantations and other uses and conversions of the forest land (*kawasan hutan*), and the beneficiaries are few and concentrated. In previous work, Gellert and Andiko (2015) argued that efforts to resolve this situation through "rule of law" were quixotic. In this paper, we push the question of the violence and flexibility of law further by examining Widodo's legal reforms and policy changes by its restructured government bureaucracy. Specifically, we examine the lack of progress in the efforts of the Anti-Corruption Commission (KPK) to

address forestry and corruption based on a 2013 agreement with twelve ministries. Simultaneously, the government moved forward with a new legal concept of “holding zone” in a policy that legalized pre-existing *izin* and safeguarded private investments. On the populist side, the new president expanded plans to allocate forest land to the people up to 12.7 million hectares and incorporated NGOs into government ministries as advisors while promising to bring effective government to the people. However, the expansion of people’s rights to forest land has not been supported by a process of conflict resolution. Changes in the governing bureaucracy favor expedience over challenging powerful actors. Overall, the political economy and ecology of Indonesia’s forests operates in, through and around a legal system. Through legal flexibility, the weakness of legal reform without social justice is exposed.

## 20: Post-Whatever: Power, Politics and Discourse in Rural Peripheries

Convenor: Guntra Aistara, Central European University

There has been a proliferation of the concept of "posts" over recent decades: from post-modern to postcolonial, post-socialist, post-political, and more. While originally introduced to make visible, politicize, and contest meta-narratives and historic injustices, they also at times serve to instrumentalize and depoliticize issues such as gender, feminism, food sovereignty, and climate change. Furthermore, in different field sites and approaches, each of these terms can carry completely different meanings. The panel will collaboratively investigate the underlying intentionalities of these "post"-narratives as emerging categories, as well as their contemporary uses, including examples of depoliticized discourses being adopted by mainstream global/local players. We will draw upon critical theory to address these "post"-narratives, the non-"post" discourses associated with the same issues, and implications for environmental activism.

Investigating cases from rural peripheries in Latin America and Eastern Europe, panelists will explore what kind of work the concepts of "posts" do, and what they conceal, in studying political ecologies of conflicts and contestation in rural development. Questions include: How do "post"-narratives configure representations of environments, conflicts, and people? How do they evoke or transform memories, futures, and conceptions of self? And what do "posts" do for the workings of power and the creation or disintegration of publics? Panelists will reflect on the contests for hegemony implied in various interpretative frameworks, and how they become mainstream, as well as how to innovate new ways of thinking about power and politics in rural peripheries.

### **Mining conflicts in the global environmental justice movement**

*Beatriz Rodríguez-Labajos (Universitat Autònoma de Barcelona) & Begum Ozkaynak (Bogazici University) and contributors to the Geoforum Special Issue on Environmental Justice and mining conflicts*

The mining extraction frontier continues to expand worldwide. What is driving this expansion? For some, the fundamental factor is the change in metabolic profiles (in terms of energy and material flows) of high-demand countries. For others, interest in mineral commodities escalated with the advent of financialisation. This is not only an intellectual question. Increased mineral consumption and extraction has triggered a 'glocal' wave of socio-environmental conflicts around extractive industries. Among affected communities, environmental justice (EJ) has emerged not only as a central concern, but as a framework to organise claims in resistance movements.

We explore contemporary mining conflicts in the context of growing global societal metabolism and financialisation, to broaden the sphere of the EJ movement and position mining-related activism as a 'glocal' process. To this end, we report the findings of a themed issue edited in *Geoforum* that addresses the drivers of expansion and debated topics in the global mining industry, the specific claims and mobilisation strategies of environmental resistance movements against mining activities at exploration sites, and reflections on these matters via international comparisons.

Additionally, drawing insights from a collective-case study approach, we identify four main sources of perceived environmental injustice in mining conflicts, and five types of responses or proposed alternatives emerging from resistances. The latter range from protests that are close to the so-called not-in-my-backyard positions to claims for a post-extractivist systemic transformation. These typologies help us to discuss the role of mining conflicts in the emergence of a global environmental justice movements and, in particular, the political dimension of mining resistance movements at the glocal level.

### **New Challenges for Climate Change Activism under Post-neoliberal Climate Change Discourses: Reflections from Contemporary Nicaragua**

*Noémi Gonda, Central European University*

Contemporary Nicaraguan environmental politics put people first, denounce capitalism and call for a new economic, social, ecological and political model based on ideals such as solidarity and inclusion. This perspective, self-qualified by the Nicaraguan government and some scholars as 'post-neoliberal' is also reflected in the Nicaraguan Climate Change Adaptation Strategy (2010).

I identify two types of reactions to discussions on post-neoliberal climate change discourses. Some praise them as counter-narratives that seek to influence the hegemonic Global- North centered, top-down climate change politics. Others focalize on the neoliberal features of the post-neoliberal discourse, which leads to an analytical tautology: namely that post-neoliberalism corresponds to neoliberalism under cover. I claim that both understandings of post-neoliberal politics are useless for environmental and social justice activists in the era of climate change. Rather, activists need to engage with post-neoliberal climate change discourses on their own terms before comparing them to their neoliberal equivalents.

I substantiate my argument with a case study from Nicaragua where I show how a post-neoliberal climate change discourse (re)produces injustices related to gender, class, ethnicity and geographical location in a different manner than under a neoliberal discourse during the neoliberal epoch (1990-2006). This analytical effort can be useful for Nicaraguan environmental and social activists who currently have difficulties challenging climate injustices because they occur under a conceptualization of the Earth "as our own Mother,"

and because they give a discursive priority to marginalized groups. However, the 'post-neoliberal' climate change discourse deepens the divide between the environmental and the social spheres, presents gender inequality as in need of technological fixes, and blames smallholder farmers for environmental degradation, thus contributing to depoliticizing both climate change and gender injustices.

### **Post-Colonialism and State Recognition in the Forests of Guyana and Suriname**

*Y Ariadne Collins, Central European University*

'Post-colonialism,' while applicable to a large, heterogeneous number of independent states (Shohat, 1992), represents a body of academic literature which explores also how the unequal and exploitative relations of the colonial period continue to affect the circumstances of newly independent ones. I argue that relations rooted in the colonial period continue to shape neoliberal environmental governance in Guyana and Suriname. I reflect on the different factors brought to light in the exploration of the circumstances of these countries by Marxist and post-structural schools of thought. Given the relatively recent conferral of independence in these two geographically defined South American states, I argue that the relationships between colonizer and colonized have shifted to a different type of dependence, one that blurs the legacy of colonial relations, shrouding them in a cloak of new beginnings and equality. I discuss the manner in which deeply entrenched colonial relations and practices continue to reflect and inform 'post-colonial' ones in the politics of environmental conservation in Guyana and Suriname by demonstrating how forest communities assert their claims for land rights and recognition, challenging the authority of the 'post-colonial' governments over the land. The governments of Guyana and Suriname have their legitimacy challenged through the communities' disregard for borders and calls for recognition of land rights. The role of the state is often legitimized through the presentation of these groups as vulnerable and in need of intervention and management. I draw on the Foucauldian (1980) concept of governmentality to demonstrate how these subjectivities are constructed by the state and internalized and challenged by the forested communities. The paper will question the ability of the postcolonial discourse to accommodate considerations of multiple actors other than the state in environmental governance in both these countries.

### **Post-war Food Insecurity in Contemporary Guatemala**

*José Pablo Prado Córdova, Central European University/Universidad de San Carlos de Guatemala*

Chronic undernutrition in Guatemala nearly two decades after the peace accords were signed begs an updated analysis of the root causes of domestic deprivation and marginalization. Current processes of accumulation by dispossession bring about renewed social conflicts in hitherto marginalized territories across the country. These territories entail



the backdrop for the clash between diametrically-opposed development views and the inception of resistance movements. Despite being the cradle of maize domestication, for instance, rural Guatemala is characterized by food-net-consumer households where cash income overrules subsistence agriculture thereby making the lack of rural employment an explanatory factor for widespread child undernutrition. Post-war farming in this context seems to be at odds with rent-seeking transnational corporations paving their way into rural Guatemala while ignoring free, prior and informed consent from the affected villages. The root causes for this renewed conflict, I argue, stem from a blatant asymmetry among economic agents which seems to be reinforced by a weakened nation-state and a voracious utility-maximization behavior showed by foreign capital.

This paper singles out the recent events in northern Guatemala, where an alleged industrial accident in an oil palm farm brought about high levels of pollution in a major river thereby jeopardizing human health, water provision and local fauna. The resistance movement that followed was harshly downsized when its most prominent leader was assassinated in broad daylight. Based on these circumstances I pose the following questions: (i) is post-war violence in rural Guatemala a significant hindrance for food security?; (ii) does the contemporary prevalence of child undernutrition in a context of food-net-consumer rural households suggest that large-scale-monoculture-derived rural employment has failed to guarantee cash-income-reliant food security?; and (iii) is rural Guatemala experiencing a true post-war period or a revamped process of slow violence fueled by transnational corporations buying their way in to a leniently-devised institutional context?

### **Farming Between the “Posts:” Limits of Post-socialist and Post-colonial Discourses in Decolonizing Free Trade in Latvia and Costa Rica**

*Guntra Aistara, Central European University*

Latvia's 2003 referendum on joining the EU and Costa Rica's 2007 referendum on entry into CAFTA were embedded in debates over national sovereignty and the place of small nations within larger geopolitics and global trade relations. Both countries have strong national narratives that define their identities in relation to past patterns of domination by foreign powers, where small farmers play a central role as the backbone of the nation and as the foundation of sovereignty and democracy, respectively. Despite the importance of the image of the farmer to the identity of the nation, official debates about the free trade regions emphasized the relationship of the nation to the region, largely discounting farmers and other groups who expressed concerns about how these conventions would alter their relationships to their land, each other, the state, and the market.

I bring these national narratives and post-socialist and post-colonial discourses into dialogue with one another, in order to analyze how they intertwine in a post-Cold War development era (Chari and Verdery 2009, Gille 2010), and how the strategic use of scale as a framing

device operates to reinforce and obscure long-term inequalities (Harrison 2006). In both cases, strong national narratives, in combination with the respective post-socialist and post-colonial discourses, countered some patterns of past oppression, yet simultaneously reinforced and normalized others. Furthermore, these discourses relegate sovereignty and democracy to the symbolic level, rather than seeing them as lived practices, which was the concern of organic farmers and other groups attempting to create new forms of relational sovereignties.

## 21: The political ecology of future-making in rural Africa

Convenors: Clemens Greiner University of Cologne, Germany, Michael Bollig (Universität zu Köln) and Detlef Müller-Mahn (Universität Bonn)

Rural Africa currently witnesses land-use changes at an unprecedented speed, comprehensiveness and spatial extent. These transformations correspond with profound changes in the lives of the concerned people and their natural environments. In their complexity and mutual interaction the multidimensional processes of change may eventually result in bio- cultural shifts and transformations, i.e. the emergence of new types of societal relations with nature and patterns of environmental governance across local to global scales, with often unknown consequences. Three major trends of planned land-use change can be singled out: Large-scale projects of agricultural intensification (e.g. the Southern Agricultural Growth Corridor in Tanzania), large-scale conservation (e.g. the Kavango-Zambezi *Transfrontier* Conservation Area) and large-scale infrastructure projects (e.g. the Lamu Port Southern Sudan- Ethiopia Transport Corridor). These projects have sparked numerous contestations, conflicts and disturbances at different scales. They are occurring between different processes and actors, between target-oriented development schemes (e.g. food security, biodiversity conservation) and a multitude of unplanned and often unexpected changes, and between competing anticipations, visions and aspirations. With respect to future-making these current changes are entailing high risks and an uneven distribution of opportunities. Our panel will scrutinize these developments against the background of an emerging political ecology of future-making. Papers in our panel will be asking how assemblages of knowledge, technologies and practices of future- making affect human-environment relations and contestations. The joint paper by Liz Watson & Detlef Müller-Mahn ("Future-making and biocultural frontiers: Policies and Possibilities at the Margins") will tackle this from a more theoretical angle, while the papers by Gerda Kuiper & Andreas Gemählich ("The contested future of Lake Naivasha: doom or bloom?"), Clemens Greiner ("Land-use change, conflict and the political ecology of anticipation in a Kenyan dryland"), and Michael Bollig ("Shifting bio-cultural boundaries, uncertainty and re- territorialization in Namibia's conservation areas") are case-study based explorations into the topic.

### **Future-making and biocultural frontiers: policies and possibilities at the margins**

*Detlef Mueller-Mahn (Universität Bonn) & Elizabeth E. Watson (University of Cambridge)*

Africa is 'rising' and accompanying this process are ambitious new development plans and policies. Development blueprints aim to 'turn history on its head', enabling previously- ignored dryland regions to become engines of economic growth for the wider benefit of these nations. The process is simultaneously redrawing the map of marginal regions and redrawing the relations between people and environments in order to gain greater control over and make 'more productive' use of these environments. The empirical part of the paper

explores the nature and spatial politics of these processes along with case studies from Eastern Africa. While on the one hand the processes are having widespread differential impacts, plans are often much less 'total' than is imagined, creating space for different possibilities in people-environment relations. The theoretical part of the paper then scrutinizes visions of the future (expressed for example in Kenya's Vision 2030) and concepts of future-making and risk against the backdrop of current debates about 'Africa rising', with a special focus on shifting biocultural frontiers. These processes entail risks and opportunities, which are unevenly distributed between different actors and the concerned people.

### **The contested future of Lake Naivasha: doom or bloom?**

*Andreas Gemählich (Universität Bonn) & Gerda Kuiper (Universität zu Köln)*

Over the past thirty years, the region around Lake Naivasha (Kenya) has experienced a major shift in dominant societal relations with the natural environment. The establishment of the world's biggest cut flower production hub, alongside concomitant developments like the opening of Hells Gate National Park, led to a rapid change of land-use. These developments sometimes conflicted with other visions on the future of Lake Naivasha. These visions have been manifold, since the region in the course of time has attracted various stakeholders from different levels: environmentalists, pastoralists, fishermen, migrant workers, other actors from the globally organized cut flower and vegetable industries, both local and foreign NGOs, local government actors, long-time landowners, researchers and others. The outstanding feature of the case of Lake Naivasha is that its reorganization was initially mainly caused by individual choices of flower farmers and flower farm workers, and was not a planned economic growth project. This shows that also individually-based aspirations and practices can induce major bio- cultural shifts.

In the presentation we will show how this unregulated change took place, which contestations and conflicts alternating visions of the social-ecological system of Lake Naivasha provoked, and also how many of these alternating visions were eventually harmonized once the agro-industrial centre was established.

### **Territorial restructuring, post-pastoralism, and the political ecology of anticipation in a Kenyan dryland**

*Clemens Greiner, Universität zu Köln*

Land-use and livelihood patterns in Eastern African drylands have changed profoundly in recent decades from specialized pastoralism to more sedentary, post-pastoralist ways of life. Ethnographic data from East Pokot in Kenya's Baringo area illustrate some of the major change dynamics and point to relevant drivers. While until the 1990s the pastoral Pokot have managed an open, non-fragmented rangeland, wildlife conservation, sedentarization

and land-use intensification as well as increasing contestation of borderlands have led to a profound fragmentation and contraction of the commons and a fundamental territorial restructuring. These dynamics are driven by economies of anticipation, fuelled by expectation of future developments such as large-scale infrastructural developments and changing politico- institutional frameworks. In a nutshell, the dynamics in East Pokot reflect the current dynamics in rural Africa at large, where land-use intensification, conservation and large-scale infrastructure developments lead to fundamental changes in people's livelihoods and human environmental relations. While much attention has been paid to the role of external actors in land appropriation in Africa, this paper directs attention to endogenous agency and compliancy in territorial restructuring and to the political ecology of anticipation in a post-pastoralist setting.

**It is difficult to stop them; Stories and claims in villages at the edge of a wildlife conservancy in Zimbabwe.**

*Svongwa Nemadire (University of Leuven, Bindura University of Science Education, Zimbabwe) & Maarten Loopmans (University of Leuven)*

Displacement of local people induced by in situ conservation has resulted in contentious relationships between local people and Protected Areas. In the classical social movement agenda, among other factors, the framing of a grievance plays an important role in mediating between political opportunity and action. Specific grievances are framed within general collective action frames and connected to other grievances in order to legitimate claims and nurture collective identity (McAdam, Tarrow, & Tilly, 2001, p.41). Studies focusing on contention in conservation have however paid inadequate attention to how local people frame displacement, claims and subsequent resistance to protected areas. In this paper, we try to contribute to filling this gap. Using ethnography, qualitative data was gathered in villages at the boarder of Save Valley Conservancy, a wildlife protected area in the Buhera district of Zimbabwe. First, we analyzed practices of different actors towards different places in and around the village, including the protected area. Whilst young men hunted illegally in the protected area, village elders wanted to bury one of their own in specific places in the protected area from which they were evicted decades ago. Older hunters did not hunt in the protected area whilst villagers collected timber and grazed livestock in areas outside of the protected area. Using discourse analysis, we analyzed narratives told by these groups of villagers pertaining to the different practices. In conclusion, we found that different groups were motivated to tell stories which were meant not only to justify their claims to land and resources tied to the land in different places, but also to align themselves with and win acceptance of other groups in the village. Narratives were intertwined with some wider cultural discourses of the villages.

## 22: Water Justice

Convenors: Rutgerd Boelens, Tom Perreault, Jeroen Vos, Margreet Zwarteveen

This panel is based on the collective conceptualization and writing effort by 30 Water Justice / Political Ecology scholars from the global South and North. They propose water justice thematic presentations and a Cambridge University Press book (under the same title) as one of the congress outputs.

This panel aims to discuss ingredients for new ways of thinking about and acting on water and water justice, ways that make visible the many entanglements among culture, power and knowledge. It engages with the complex linkages between ecosystems and societies that characterize questions of what is fair, equitable and sustainable in water. The panel highlights the multi-layered contents and everyday working rationality of on-the-ground water rights and governance systems. These are the everyday rural or urban water management frameworks and cultural realities that are often omitted from scientific water studies, legal frameworks, and policy proposals. Another important theme is the overt and covert ways in which intervening agents and elites take over water resources. State, market and expert networks use water interventions to reshape existing water societies according to their imageries or ideologies, often favouring specific interests and promoting specific developmental pathways. Legal or technical interventions or reforms thus affect existing institutions and alter water allocation patterns, in the process also transforming identities, territories and cultures while eroding existing water wisdom. Current policy faith in (quasi-) market mechanisms as solutions to problems of water scarcity – locally, nationally and globally – threatens to even further widen the gap between the water ‘haves’ and ‘have-nots’.

Beyond their expression in laws, explicit rules and formal hierarchies, the panel calls attention to how power and politics also significantly work through more invisible norms and rules that present themselves as naturally or technically ordained. These rules have come to belong to the accepted normalcy of water development interventions, and are enshrined in water expert communities’ cultural codes of conduct and behaviour. Therefore, in addition to dealing with the urgent issue of ‘water grabbing’ and its distressing impacts on millions of peoples around the world, the book’s attention to these capillary workings of power also goes beyond such overt water injustices and open conflicts, showing how unfairness and injustices are intrinsic to standard ways of knowing and governance.

These changes or clashes may provoke more or less open water conflicts, evolving in contexts of often highly differentiated power relationships. In addition, the panel discusses responses to water injustice problems, significantly inspired by the ways in which local user collectives, sometimes through multi-level alliances with others (water citizen groups, professionals, rights coalitions, tribunals, scholars and policy-makers), strategize to defend, reclaim and re-embed their water rights, knowledge systems and governance forms. These

struggles to protect and secure water resources as well as water communities, identities, territories and cultures provide the creative, pragmatic ingredients of strategies towards a more water-just world.

Therefore, the panel's participants highlight how questions of water justice combine (in complex and sometimes paradoxical ways) demands for fairer socio-economic distribution with those for more or better cultural-political recognition. Presentations elaborate on a relational, grounded definition of water justice, which explicitly addresses contextuality and recognizes both its material and economic dimensions ('redistribution') as well as its cultural and political dimensions ('recognition' and 'participation', respectively), while taking place in the arena of struggles for socio-ecological justice ('socio-natural integrity').

### **Introduction: the multiple challenges and layers of water justice struggles**

*Rutgerd Boelens, Tom Perreault, Jeroen Vos, Margreet Zwarteveen*

This first chapter explains how the book examines water conflicts and struggles for socio-economic re-distribution, political representation, and cultural justice that arise when there are questions about allocating water resources and water-related decision-making powers. The chapter focuses on these contestations and struggles for resources and rights as the crucible for illustrating political and cultural interaction over controlling water, the most vital of resources. We frame this by larger discussions about globalization, neo-liberal economic ideology and technocratic interventions.

The chapter explains how modernist water policies and neoliberal globalization affect production and distribution of goods and also, necessarily, reconfigure ways of talking, existing and relating. Water is about materiality as much as it is about culture and communication, and struggles demanding water justice are thus also about divergent ideologies, ontologies and epistemologies. In addition to questions about access to the resource, water justice entails struggles over formulating rules and rights; over the authority to make decisions and enforce norms; and over the systems established, to impose, legitimize or defend particular policies and worldviews. In the context of bureaucratic water administrations, market-driven policies, desk-invented legislation, top-down project interventions, and the booming, unequal competition among multiple water users and uses, main questions in this chapter are, for instance: how do prevailing economic and political contradictions produce socially differentiated water scarcities, and deepen societal water conflicts?; how do marginalized, affected water user groups mobilize against dispossession, and what are the opportunities for multi-scale response strategies?

The chapter also introduces the book's objectives, themes, structure and the subsequent chapters, which use examples from Europe, Asia, North and South America and Africa: for comparative reasons and to illustrate how water policy-making is embedded in international decision-making arenas.

## **The meaning of mining, the memory of water: collective experience as environmental justice**

*Tom Perreault*

This paper uses memory – individual, collective, and historical – as a lens to theorize water justice. Memory, expressed verbally as spoken and written narratives, or visually through public art and monuments, plays a fundamental role in how we understand environmental suffering, its causes and potential remedies. In Bolivia, mining is memorialised as central to the collective national experience, constructing a national identity as a *país minero* (mining country). Memory is similarly important, though less public, for populations impacted by mining contamination and their claims for reparations.

This chapter considers the case of indigenous *campesino* communities and their exposure to mine-related water pollution on the Bolivian Altiplano. Drawing on ethnographic research, it argues that memory – as stories told about past experience – necessarily requires selective remembering and selective forgetting, and is best viewed as a political and ideological resource in its own right. In this sense, memory can be mobilised in various forms and at a range of scales, from the individual to the national. As representations of the past, memory is always also a representation of the present, and a reflection of contemporary realities, which in turn informs political demands. In this way, memory may be seen as a vital conceptual tool for theorizing environmentally just futures.

### **Conclusions: struggles for justice in a changing water world**

*Margreet Zwarteveen, Jeroen Vos, Tom Perreault, Rutgerd Boelens*

This final chapter integrates the previous chapters, their cases and concepts, and seeks to answer the book's overall questions. Together, the chapters in this book help readers understand the struggles that ensue as 'modern' water policies and powerful water use and governance actors confront existing forms of control rooted in the cultures and identities of user groups and their networks. The book questions emerging water allocation patterns and governance arrangements, including the ways they are legitimized in policies or scientific discourses. Key questions that the book addresses include: how is water scarcity constructed and by whom? How is water justice conceptualized and how does this differ across spatial scales? How and when do newly-developed water scarcities result in conflicts, and who wins and who loses in such conflicts? How to unravel the power dimensions of truth claims in water science and development? How to make knowledge work in strategies to combat water accumulation, dispossession and theft? How to link diverse bodies and sources of knowledge, including those of activists and water users?

The book shows that conflicts and possible answers clearly go beyond the issue of equal access to water, as questions of water justice are entangled with larger political ideologies and economic doctrines. Different forms of interacting with – accessing, knowing, governing – water also form an important ingredient of cultural ways to be and belong,



providing metaphors and co-constituting normative repertoires for expressing existential philosophies and cosmologies. In this way, the book also shows that water provides an illuminating entry-point for grappling with wider environmental and societal justice dilemmas; dilemmas that lie at the heart of contemporary attempts to re-think and re-model human-nature relations.

Rather than placing too much faith on conventional policy proposals as remedies for identified problems, much of the book shows how the very policies aimed at redressing water inequities often work to further widen the gaps between those who are water-secure and those who are not. Many chapters in the book look towards water user communities' and neighbourhoods' strategies and responses to water problems as important sources of inspiration for new ideas, technologies and institutional arrangements to combat and challenge water injustices. At the same time, the book accentuates and shows that the current intensification of local-national-global linkages and connections makes it increasingly meaningless and difficult to limit analyses or actions to particular localized struggles or problems. Critically tracing these linkages and connections, therefore, and forging strategic alliances across contexts and places, is a crucial element of contemporary responses to water injustices.

### **Water grabbing – appropriation of water resources in the context of expanding global capital**

*Lyla Mehta, Jennifer Franco and Gert Jan Veldwisch*

Contestation and appropriation of water is nothing new, but has received renewed attention in light of global debates on land grabbing. These large-scale land acquisitions are only the tip of the iceberg of a much wider and deeper process of transformation driven by the further enrolment of natural resources in the global economy. This includes agricultural production, but extends to mining, hydropower development and other businesses.

This chapter demonstrates that the fluid nature of water and its hydrological complexity often obscure how water grabbing takes place. The fluid properties of water interact with the 'slippery' nature of the grabbing processes: unequal power relations; unclear administrative boundaries and jurisdictions, and fragmented negotiation processes. Moreover, grabbing takes place in a field that is locally and globally plural-legal. Formal law has been fostering both land and water grabs but formal water and land management have been separated from each other—an institutional void that makes encroachment even easier. Ambiguous processes of global governance have increased local-level uncertainties and complexities that powerful players can navigate, making them into mechanisms of exclusion of poor and marginalised people. Yet at the same time, and partly in response to the described dynamics, new forces are emerging to challenge water grabbing at multiple levels and variable ways – including existing social justice movement actors combining in new ways, for initiatives aimed at changing the balance of power both on the ground and in policy and governance arenas.

## **Reconfiguration of hydrosocial territories d water justice struggles**

*Lena Hommes, Rutgerd Boelens, Bibiana Duarte-Abadía, Juan Pablo Hidalgo and Jaime Hoogesteger*

This chapter explores hydrosocial territories as spatial-political configurations of people, institutions, water flows, hydraulic technology and bio-physical elements revolving around water control. Territorial politics confronts diverse actors whose spatial and political-geographical projects compete, superimpose and align their territorialisation strategies in order to strengthen their water control claims. In practice, hydro-social territories that are imagined, planned or actually materialized, have functions, values and meanings that are different or even incommensurable for the different parties involved. Conflicts over water governance, development and distribution therefore involve diverging regimes of representation, each aiming to conceptualize, arrange and materialize water realities in different and often mutually contradicting manners.

Using a political ecology focus and providing illustrations from Peru, Colombia, Ecuador and Turkey, this chapter discusses how such territorial reconfiguration projects may generate and stabilize profound water injustices, while movements' struggles for techno-political re-composition may challenge dominant hydro-territorialisation projects. These power plays and contestations tend to continuously transform or question the territory's hydraulic grid, cultural reference frameworks, economic base structures and political relationships. Consequently, the authors show that territorial struggles go beyond battles over natural resources as they involve struggles over meaning, norms, knowledge, decision-making authority and discourses.

## **Re-politicizing water governance: exploring water re-allocations in terms of justice**

*Margreet Zwarteveen, Dik Roth, K.C. Joy and Seema Kulkarni*

Contemporary socio-economic transformations are creating increasingly serious water problems (scarcity, flooding, pollution) and conflicts in many regions of the world. Conflicts over water distribution, water-derived benefits, and risks often play out along axes of social differentiation such as caste, wealth, and gender. Those with the least power, rights, and voice most suffer from a lack of access, exclusion, dispossession, and further marginalisation, resulting in livelihood insecurity or increased vulnerability to risks.

This paper proposes analysing such water problems as issues of justice – problems of distribution, recognition, and political participation. Drawing on wider environmental justice approaches, the paper argues that a specific water-justice focus must account for the specific characteristics of water as a resource, as well as addressing the particular ways of accessing and controlling it. To recognise water problems as problems of justice requires re-politicising water, because mainstream approaches to water resources, water governance, and legislation tend to normalise or naturalise their distributional assumptions and

implications. An interdisciplinary approach that sees water as simultaneously natural (material) and social is important here.

### **Indigenous people and water governance in Canada: regulatory injustice and prospects for reform**

*Karen Bakker, Leila Harris and Caleb Behn*

High rates of resource extraction in northern and western Canada are creating intense socio-environmental pressures on indigenous peoples' traditional territories. Fresh water systems are particularly affected by mining, oil and gas extraction, and forestry. This, in turn, has significant impacts on indigenous communities, including compromised access to safe drinking water, threats to environmental water quality, and related livelihood and health issues—such as access to traditional bush foods (of vital cultural and socio-economic importance, particularly in remote communities).

This chapter documents and analyses several clear instances of regulatory injustice within Canada's colonial water governance framework. The authors first provide an overview of the legal and regulatory architecture of environmental and water governance in Canada, with specific examples of the disjuncture between colonial (Western) law and indigenous water laws. Next, the chapter presents two short case studies of regulatory injustice in the province of British Columbia: the FITFIR (First in Time, First in Right) water rights regime; and the hydropower development consultation regime. The authors then explore current responses, focusing on the potential for indigenous water co-governance—concluding with some concrete suggestions for reform.

### **Ecuador's water governance politics during the last three decades: a political-ecological analysis of legal and institutional reforms**

*Edgar Isch L, FORO Ecuador*

In the Republic of Ecuador, over the past 30 years, there has been an intensive and rapid modernization process transforming the water sector. While a first period of reforms involves the implementation of neoliberal policies and a second one proposes an ensemble of so-called post- neoliberal policies based on Keynesian perspectives, both periods deeply relate in terms of efforts to modernize capitalism. Both also relate in terms of growing conflicts and social mobilization.

As a result, today, Ecuador has installed a new policy, including an institutional and policy framework that assumes Integrated Water Resources Management (IWRM), recognizes water as a public good (and a human right), opens the country for foreign investments, recognizes the impact of climate change, intends to manage water at catchment scales and concentrates water governance decisions in one single water authority. In ambiguous relationship with neo-liberal ideology, this historical policy rupture and convergence has

resulted in the centralization of public authority over water affairs and the concentration of flows and related resources in the hands of the few. Centralization of state control over water and the emergence of a hydraulic bureaucracy are clear expressions of the current policy wave.

This paper examines a case study of the institutional, regulatory and policy changes in Ecuadorian water governance. It aims to respond to issues as how the benefits and resources are distributed, which social sectors have been major beneficiaries, which positions are defended in dealing with water conflicts, what is the relation among governance reforms and international policies promoted by international finance institutions, among other topics of interest. A political ecology perspective is used to examine how economic and political processes determine the modes of natural resources exploitation and extraction.

### **Uniting diversity to build Europe's water movement: "Right2Water"**

*Jerry van den Berge*

From April 2012 to September 2013 the European Citizens' Initiative (ECI) "Right2Water" ran and collected 1.9 Million signatures across Europe. With that result it became the first ever successful ECI. It allowed the organisers to put their issue on the European political agenda. "Right2Water" proposed in its initiative to implement the human right to water and sanitation in European legislation. The European Commission had to respond to "Right2Water". The official response was as a cold shower to the organisers. In its response the Commission stated that many of the suggestions were already part of Europe's policy and that it would not change or amend any existing legislation.

The paper looks into how the ECI became successful from a point of awareness raising and a social movement perspective. The trade unions in public services took the initiative to challenge European neo-liberal policies. "Right2Water" stated that "Water is a human right and a public good, not a commodity!" The ECI was supported by over 250 organisations and thousands of people that campaigned all over Europe. "Right2Water" gave a new momentum to social movements that were active on water issues and extended the focus of social movements that did not pay attention to water until then. It united a huge diversity of organisations. Examples of how this movement came into being will be given from Germany, Spain, Italy and Greece.

The paper analyses whether "Right2Water" made any change to European and national policies on water and sanitation. It will look at aspects of management and commercialisation of water services and to water in EU development cooperation. Water services are essential to all people and must be provided without discrimination. This is the point that "Right2Water" tried to make in stating that water services cannot be liberalised.

Where market mechanisms determine who receives water and what quality of water people get, the gap between rich and poor increases and inequalities are consolidated. “Water is a public good, not a commodity” has been acknowledged by the European Commission, many politicians and even by corporations after the successful ECI “Right2Water”, but clearly water is also politics and a driver for social justice.

### **Virtual water governmentalities and the water justice question**

*Jeroen Vos and Rutgerd Boelens*

Global virtual water trade has increased enormously during the past decades. Agricultural, mining and hydrocarbon exports are promoted and increasingly governed by international financing, free trade agreements, and water stewardship policies, upstaging local and national decision-making institutions. Increased water extraction, consumption and pollution by agribusiness and extractive industries affect many local communities directly, depleting fragile water balances, re-patterning local water flows and livelihoods, and altering the local-national-global structure of costs and benefits associated with water use. Moreover, governance restructuring is accompanied by emerging global water stewardship discourses that have profound effects on local water user communities’ ideas about water governance and justice. Examples of important modernistic concepts legitimizing resource abstraction and water governance by industries include: ‘efficiency’, ‘water-saving technologies’, ‘competitive advances’, ‘payment and offset of hydrological services’, ‘sustainable landscape’ and ‘modern progress’.

This chapter examines how different governmentality mechanisms foster general acceptance of these water stewardship discourses, paying particular attention to new phenomena such as green accounting, water stewardship standard-setting and certification schemes. This new water governance ontology, epistemology and materiality is composed, installed and commensurated through a myriad of governance techniques. In other words, global extractive industry and agrifood chains endeavour to re-pattern not only hydro-social territories’ material and hydrological foundations but – by normalizing and naturalizing corporate business’ water governance supremacy – they strategize to also spread and overlay a new water justice imaginary and discourse.

However, these new corporate water justice discourses are increasingly contested. The chapter concludes with several examples of ‘movements against the current’.

### **Water injustices and the politics of acceptance**

*Frances Cleaver*

Scholars who focus on issues of water justice tend to emphasise struggles for water access, variously emphasizing contestations over rights and distribution; rules; authority and representation; discourses and knowledge. Contestations over water are ubiquitous and the project of problematizing technical and managerial water distribution models is an

important contribution to water justice thinking. However, this chapter argues that such a perspective can distort the analytical gaze towards conflictual events and processes and towards relationships of domination and resistance. The author suggests that we also need to focus on how and why everyday relations of water access/distribution are so often characterized by acceptance, compromise, concessions and adjustment, and by overlooking injustices.

This draws us into the realm of explaining the nature of human agency, social life and the ways in which water arrangements become institutionalized. The author further reflects on the challenges of studying the non-occurrence of contestation rather than on more obvious manifestations of conflict and struggle. The chapter uses various case illustrations from different countries to show the importance of examining the 'politics of acceptance' of water injustices, for building a coherent view on the complex issue of water justice.

### **Inequality and interconnectivity: political ecology of water justice in Mexico**

*Anja Nygren, University of Helsinki*

Cities in different parts of the world are going through intensive socio-spatial transformation, based on the institutional efforts to regulate urban spaces and populations due to risks and vulnerabilities associated with global climate change. These procedures transform urban areas and inhabitants in highly segmented, yet interlinked ways. I focus on this interplay of inequalities and interconnectivities in water governance and justice in this paper, drawing on a case study of the city of Villahermosa, Mexico. The study is based on an ethnographic analysis of three socio-economically differentiated sectors of the city: 1) Tabasco 2000, a high-income residential area; 2) El Guayabal, a middle-income neighbourhood; and 3) Gaviotas Sur, which is a low-income, informal settlement. In recent years, the political ecology of environmental justice has become an important approach to examine diverse concerns and claims related to environmental-social inequalities. Most approaches consider the political ecology of justice merely as a framework that explores socio-spatial distribution of environmental benefits and burdens among human populations; in contrast, this study contributes to a multi-dimensional approach towards justice that encompasses issues of redistribution, recognition, representation and recovery, and their interlinkages. The main issues to be addressed in this study are: (1) the socio-spatial *(re)distribution* of residents' exposure to flood risks and access to infrastructure services; (2) cultural *recognition* of flood risks and vulnerabilities and their causes and consequences; (3) fields of political *representation* available for different groups of residents; and (4) capabilities of different residents to *recover* from flood hazards and achieve everyday well-being within the wider structures of urban governance and service provision. Special attention will be focused on how different groups of residents structure their relationships with the state, with each other, and with the city itself and how they make sense of their experiences of governance and (in)justice within the city that is socially segmented but dynamically interconnected. To understand justice-related inequalities and interconnections

in socially segregated cities requires careful empirical analyses. This is especially true in many Latin American, African and Asian cities, where large numbers of people live in substandard settlements with inadequate basic amenities, while urban elites seek to isolate themselves into gated communities, with detached services of water, sanitation and security. Instead of conceptualizing segregated cities as composed of isolated worlds, I argue that only through an intersectional analysis of how residents from different parts of the city interact with each other, it is possible to understand how the prevailing forms of urban governance produce multifaceted injustices concerning the residents' exposure to flood risks and access to services. The residents' tactics to accommodate, reconfigure and contest the institutional endeavours that seek to place them in hierarchical positions, intersect with their socially differentiated but interconnected ways to construct the city-space. Altogether, these processes produce a complex urban social geography, with disparate but dynamically interconnected life trajectories; a situation that resonates with a range of contemporary urban contexts.

## **23: Natural capital: interrogating 'capital', 'valuation' and the implications for equity, justice and rights**

Convenors: Dr. Catie Burlando (Independent researcher) & Caroline Seagle (McGill University)

'Natural capital' (NC) is evolving into a dominant approach among international organizations, national governments and industrial actors that seeks to embed conservation in global markets and financial decision-making. NC is premised upon the predominantly monetary valuation of ecosystems and their components (water, biodiversity, carbon, etc.) and their conversion to 'capital' through measures such as Payments for Environmental Services (PES), biodiversity offsets and REDD (Reducing Emissions from Deforestation and Degradation). These mechanisms are thought to increase financial investments in conservation while reducing business risks. While NC is designed to 'save' nature from the very drivers of its demise (e.g. development and extractives), they concomitantly create opportunities for financial accumulation.

The fundamental issue is whether NC, as another element in neoliberal approaches to conservation (Igoe and Brockington 2007; Arsel and Büscher 2012), emerges as potentially "fictitious conservation" (Büscher 2013) that produces value in nature as detached from social, geographical and historical contexts. Indeed, what are implications of NC for social equity, justice and rights? While there is little agreement over what NC means in different cultural, political and economic settings, the tendency to value ecosystems as monetary 'capital' ignores the complex social-ecological fabric of how people value, use and enact rights over land. Further, conflicts and contestations over the implementation and notion of NC and its mechanisms remain. Whose 'values' and indeed 'natures' are being preserved and advanced through NC accounting, and how can we understand different forms of value production within this process?

Drawing from critical interdisciplinary frameworks ranging from anthropology, geography and political ecology to economics and international human rights law, this panel seeks to unpack some key aspects of theoretical design, valuation metrics, discursive use and deployment of 'natural capital' in diverse settings. Papers presented offer insights into the implications of NC for environmental conflicts, equity and rights.

### **The Natural Capital 'Solution'? Some Reflections on the Discursive Legitimacy of Natural Capital and Three Blindspots to Consider**

*Catie Burlando (Independent researcher) & Caroline Seagle (McGill University)*

While the original notion of 'natural capital' stemmed from a critique of natural resource exploitation and degradation, the term has rapidly evolved into a 'solution' mainly embraced by international organisations such as IUCN and UNEP, conservation actors, business and governments (see the Natural Capital Protocol). Natural capital is premised upon the



support of networks, metrics and practices that value nature primarily in economic terms and seek to maintain intact an “aggregate” or “net” level of natural capital. As such, the natural capital 'solution' is objectified as a “simple norm” which, if applied properly, *should* work, with loss of natural capital presented as both business risk and opportunity (Helm, 2015). We suggest that three problems with natural capital remain. First, there is a *material* disconnect between the perceived problem (e.g. mineral extraction or industrial development) and the proposed 'solution' (e.g. economic valuation and accounting, carbon/biodiversity offsetting, PES, REDD), which is dematerialized from its local context. Second, there is a *discursive* conflation of problem with solution, as mineral extraction, for example, becomes remediated as less of a threat than an opportunity for conservation of nature. Third, natural capital does little to present complex ‘*resolutions*’ that take into account past grievances, historical power relations, local and indigenous rights, knowledge and stewardship, and the root causes of degradation.

In this paper we identify the assumptions and discursive forms of legitimacy underlying NC, highlighting the three blindspots mentioned above. Processes of legibility that make natural capital convincing may also render invisible the complex and often illegible social and ecological relations at stake in the implementation of NC initiatives. While proponents of NC themselves recognize that natural capital cannot account for all values and provokes ethical questions, besides a cursory recognition, not enough work has been done to address these blindspots.

### **The Natural Capital Metaphor and Economic Theory**

*Alejandro Nadal, Centre for Economic Studies, El Colegio de México*

As the 'Natural Capital' (NC) metaphor is presented by its advocates as being derived from economic theory, this paper examines the relationship between NC and key aspects of economic theory. The metaphor was intended originally to build support for conservation of the environment, but its development into an idea that can help measure nature as a stock of assets and flows of ecosystem services in economic (monetary) terms has little foundation in economic thought. *First*, we analyse NC's relation with the theory of capital as it is developed in the neoclassical school of marginalism, recalling that it is not possible to have an unambiguous measure of manufactured capital. *Second*, we concentrate on intertemporal equilibrium systems where there is no aggregate production function; we highlight, in this regard, the shortcomings of these general equilibrium models in terms of stability (price formation dynamics), and analyse the difficulties in constructing aggregate excess demand functions in the context of the natural capital metaphor. The Sonnenschein-Mantel-Debreu theorems are used to evaluate the severe limitations of the natural capital approach in both general equilibrium and in marginalist partial equilibrium. *Third*, we examine valuation techniques and the implications of re-switching when using discount rates, the nature of disequilibrium prices and the reference to financial capital as a

foundation for the valuation of natural capital, highlighting opaqueness and volatility in the context of financial vehicles used in over-the-counter transactions (such as options and 'swaps'). We conclude that the natural capital metaphor has no theoretical foundations in economics. It cannot be translated into an operational tool that adequately measures 'natural assets' and their flow of services. The NC metaphor provides little insight into the drivers of environmental degradation, instead operating as a metaphorical distraction. Other avenues for more meaningful research are discussed.

### **In Search of “A Good Biodiversity Yield per Hectare”: Producing Value within English Biodiversity Offsetting Policy**

*Louise Carver, Birkbeck, University of London*

Biodiversity offsetting (BDO) comprises a key mechanism within nascent Natural Capital (NC) approaches to conservation policy in the UK. As testified by its hosting of the first and only global natural capital and biodiversity offsetting conferences over the past 3 years, the UK is positioning itself as the “world leader” (Barter 2015) in the development of NC. The demonstration, recognition and capturing of ‘value’ derived from ‘stocks of nature’ that have hitherto been ‘taken for free’ is key to this approach. BDO arguably forms the most advanced attempt, in the British context, to mobilise valuation technologies in the conservation and business sectors. As a means of accounting for ecological losses and gains, BDO has a view of ‘netting out’ a greater overall ‘aggregate’ of biodiversity.

This paper asks what it means to value nature using BDO; what this biodiversity ‘value’ is, how it operates and where it circulates. Significantly, it asks what the political and socio-ecological implications are for the types of ‘biodiversity’ that are being produced. Drawing from detailed, comparative empirical research from two sites in an English biodiversity offsetting pilot study, this paper charts the iterative layers of value creation, wherein biodiversity is constructed as a new conceptual category, stabilised as a valued entity and transformed into a unit of exchange. It demonstrates the techniques through which ecological value is first rendered knowable, with nascent quantification practices, and subsequently translated into economic exchange value by way of constructed commensuration between new value entities vis-à-vis a calculative device (Callon 2007), the ‘DEFRA biodiversity metric’.

The paper will illustrate the function of these calculative devices in combination with discursive and network alignments that contribute to the construction of biodiversity value. Through a distilled case study, it presents a short tale of the ‘what’ and the ‘who’ in English biodiversity offsetting.

## **Seismic Power Shifts in Governance and Rights as Natural Capital Takes Hold in Africa's Large Complex Development Areas**

*Jennifer Mohamed-Katerere (Independent researcher and human rights lawyer) & James Murombedzi (UNECA Africa Climate Policy Centre)*

The notion of natural capital (NC) is being actualized in ways that could have profound implications for social relations and natural resource governance. Sullivan (2014) argues that the systematic interlocking of previously distinct domains of economics, business and finance with ecology, environmentalism and conservation is creating four fundamental shifts in (1) the discourses/understandings of nonhuman natures and conservation practice, (2) institutional systems, including at global and national levels, (3) the reliance on calculative and accounting systems for capital offsets, and (4) the leveraging of accounted-for-conserved nonhuman nature as 'natural capital' that serves as the underlying asset upon which financial investment is maintained.

The NC discourse holds sway among many African governments. The 2015 Cairo Declaration on Managing Africa's Natural Capital for Sustainable Development and Poverty Eradication, adopted by Africa's environmental ministers, focuses on NC as the key to achieving desired goals in environment, development and financial sectors. But the administration of this magical potion is devoid of any consideration of how societal shifts described above and social and ecological complexity will impact on social and economic relations (including governance) on which current (unsustainable) patterns of development are based.

This paper considers the implications of the NC discursive and organizing framework for natural resource governance and normative commitments made by proponents in Africa. We ask how the shifts identified above operate in the African context, where intensive development practices (agriculture and/or extractives) have been adopted, and in which extreme inequity prevails. We consider how nature-as-capital discourses and practices are (re)shaping: (1) decision-making, including who decides, what they can decide, and for whom, through the creation of new institutions; (2) relationships of accountability and representation; (3) the local experience of human rights as a dimension of governance; and (4) realities of environmental conflicts.

## **24: Troubled Waters: Political ecologies of hydro-social change in an urbanization context**

Convenors: Dik Roth and Deepa Joshi, Wageningen University

### **Political ecologies of hydro-social change in an urbanization context**

*Dik Roth and Deepa Joshi*

A growing body of scientific work analyses water interventions and conflicts from perspectives inspired by political ecology. Such approaches provide a powerful alternative to the technocratic and interventionist fields of scientific engineering and disciplinary water studies and related 'water resources development' strategies, policies and practices. Major contributions by political ecology perspectives to water are the re-politicization of water studies, drawing attention to power and inequality in access and rights, new ways of knowing and making sense of water-society relationships, a growing critical interest in how 'waterscapes' are controlled and governed, the role of scales and flows in a context of privatization and globalization, and emerging questions of water-related conflicts and water justice. Critical political ecology perspectives have also put into perspective essentialized views of the 'local'.

In this panel we explore the contributions of political ecology in the analysis of water and hydro-power in a context of urbanization in South Asia. We focus on two contentious contemporary developments. First, urbanization in the region is resulting in increasing extraction and appropriation of water from peri-urban and rural areas. Land use changes, the disappearance or degradation of surface water bodies and groundwater resources, and changing constellations of water access, rights and security are dramatically changing life and livelihoods in peri-urban areas. This may lead to - sometimes violent - conflicts.

In the second case, water is appropriated in a different way, but also closely related to urbanization. Growing urban populations and development strategies betting on (peri-)urban-based economic activities raise demands not only for water, but also for (hydro-)power. The global re-positioning of large dams producing hydropower as climate mitigating finds much resonance in 'local' arguments and claims for 'green' energy security and economic growth. However, hydro-power generation also brings huge changes to mountain environments and livelihoods, and also conflicts about these changes and their consequences.

Both processes are often presented as natural, necessary or unavoidable, and their outcomes as beneficial and 'developmental'. Therefore, they need to be more critically questioned: how are water and other resources mobilized in these processes, what does this mean for peri-urban and rural livelihoods of diverse groups of 'local' communities? How are benefits, burdens, inequalities and risks produced, reproduced and/or redistributed? What is the nature of emerging contestations and conflicts? How are these changes interpreted, analysed, and framed by various actors? To what extent, and in what ways, are these

processes experienced and understood as ‘injustices’, taking into account that they do not happen in isolation, but are critically linked to urbanization, water insecurities and climate change?

### **Interrupting the hydropower future: energy security and the narration of risk in post-earthquake Nepal**

*Austin Lord*

The earthquakes that struck Nepal in 2015 inflicted significant damage on Nepal’s current and future hydropower infrastructures, interrupting both the material production of electricity and the imaginative production of a hydropower future. Just months later, a politically precipitated ‘fuel crisis’ is highlighting latent conditions of political instability and reinvigorated nationalist narratives focused on the need for energy security. While some have called for a rethinking of Nepal’s imagined energy future (Thapa & Shrestha 2015), proponents of the hydropower sector have called for the declaration of ‘a state of energy emergency’ (IPPAN 2015) that will fast-track programmatic hydropower development and ensure that the Nepalese hydropower frontier remains ‘open for business’ (Investment Board of Nepal 2015). Meanwhile, energy scarcity has forced the urban population of Kathmandu to confront stark limits to economic activity under shifting patterns of energy consumption that defer the current crisis: increasing fuelwood harvest, cooking with induction stoves that strain the grid, or black market fuel purchases. With winter approaching, the promised hydropower future hangs like a cloud over a city still swollen with earthquake-displaced people struggling to prepare for scheduled blackouts that may reach over sixteen hours per day.

Drawing from my own lived experience of both of these crises and three years of research on the making of Nepal’s hydropower future, this paper interrogates the narrations of socio-political, financial and geophysical risk that shape contemporary energy politics in Nepal. Despite recent disruptions, the current discursive environment remains dominated by the financialized hope of creating a ‘hydropower nation’, a dream which obscures a) renewed realizations of seismic risk; b) the biomaterial complexities of the Himalayan water – energy – food nexus; and c) embedded crises of urbanization in Kathmandu. Further I argue that geopolitical theatre and polemic calling for international action to bring an end to the ‘unofficial blockade’ serve to displace attention from significant failures of government in post-earthquake Nepal that are reproducing structural inequalities and multi-scalar problems of environmental justice.

## **Water on the fringe: politics, policy and changing resource access in peri-urban Gurgaon, India**

*Vishal Narain, Sumit Vij and Pratik Mishra*

This research is located in peri-urban Gurgaon, an emerging, residential, outsourcing and industrial hub of North-West India. The paper takes a political ecology perspective to understand the re-appropriation of resources between urban centres and the settlements at the periphery -communities who lose land and water to support urban expansion, while receiving urban wastes. A discursive analysis of policies for urban expansion reveals that the projection of modern cities as new engines of growth creates a justification for these actions. Unequal power relations between the village and the cities exacerbate the effects of unequal power relations among rural communities, deepening inequities in resource access and use. As the research focuses on institutions and unequal power relations, power in these relations is more diffused than direct.

The research is located at the intersection of three canals that carry water between the villages and the city of Gurgaon. This paper takes a hydro-social and socio-technical lens to examine the changing flows of water in peri-urban contexts and how these give rise to new socio-technical configurations (mix of technologies and institutions –norms, practice and codes of conduct through which water is accessed and used) and how they change patterns of resource access. Climate variability– in the form of changing timing, frequency and intensity of rainfall – reproduces the effects of these changes. State policies for compensation on occasions of untimely rainfall may further aggravate the impacts of these, for instance, by deepening the divide between land-lords and tenants. Thus, there is a layering of stressors that compound the effects of unequal access to resources.

The paper looks at different types of conflicts that emerge in this context –between the state and the users, between rural and urban users and among peri-urban communities, while also focusing on new norms, institutions and practices that support the changing rural-urban flows of water and prevent conflicts of interest from emerging into outright conflicts.

## **Water rights and water allocation in Latin America: the importance of boundary spanning**

*Iris Bijlsma*

To what extent can boundary spanning prevent and solve conflicts about water rights and water allocation in river basins in Latin America and build an enabling environment for integrated and sustainable water management?

The strive for water rights and water allocation has already caused several conflicts and problems between actors in river basins in Latin America. Although the Latin American region as a whole has one of the highest per capita allocations of fresh water in the world, the destruction of water sources, combined with inequitable access, has left most Latin Americans 'water poor', which will continue to cause conflicts between actors in river basins

if no solution is found. Taking a political ecology perspective into account, understandings of control and governance of water rights and water allocation in river basins in Latin America will be focused on by the use of boundary spanning.

Boundary spanning is 'a combination of inter-related activities concerned with connecting different actors from the realm of government, society, and business, building sustainable relationships and information transfer between thesis actors' (Meerkerk, 2014:37). Boundary spanning could play an important role in avoiding and solving the conflicts in river basins in Latin America and could enable the building of new 'waterscapes'. Through boundary spanning, an integrated and sustainable approach of water management is encouraged. Water managers are stimulated to combine multiple fields of interest and negotiate and make alliances with actors in other policy areas in order to have an integrated and sustainable approach towards water related themes, such as water rights and water allocation. Possible boundary spanning solutions in case studies of Costa Rica and Colombia will be shown.

## **25: Contestation Beyond Borders, Frontiers and Basins: Political Ecologies of Rivers and Land in Myanmar (Burma)**

Convenor: Dr. Carl Middleton, Faculty of Political Science, Chulalongkorn University

This panel convenes papers on conflict and the political ecology of land and rivers in Myanmar (Burma). We situate the panel in a context of rapid changes in Myanmar, including: an economy that has transitioned from state socialism to state-mediated capitalism since 1988 and that is now increasingly liberalizing; a political system has transformed from a military junta to a form of 'disciplined democracy'; and where public space for civil society and media has somewhat broadened. With a focus on resource extraction, land grabs, and hydropower dams, we explore how Myanmar's water-, land- and energy-scapes are being produced through processes of capitalism, (partial-)liberalization, nation-building, and conflict transformation. We relate these processes to their historical context, and to local and transnational networks of actors including government, private sector, civil society, and ethnic armed groups, the power asymmetries between them, and the spaces within which political and sometimes violent contestation have unfolded.

Drawing on recent empirical fieldwork, the papers present case studies from: Tanintharyi Region, southeastern Myanmar; the Salween River shared between China, Thailand and Myanmar; and Chin State at Myanmar's western frontier. In Tanintharyi Region, the paper presents the case of the proposed Ka Lone Htar Dam where accumulation by dispossession was resisted by a local social movement. The paper reveals how the community's strong sense of place-based identity originates from past hardships and distrust of the central state. It argues that the state thus deployed extra-economic means in an attempt to displace them, but was ultimately unsuccessful as its alliance with the project's private-sector developer weakened. For the Salween River, the paper analyzes plans for the construction of large hydropower dams in contested ethnic areas through the lens of transnational energyscapes and conflict transformation. It relates political tensions within planning electricity supply in Thailand to processes of economic regionalization in Southeast Asia, and argues that transnational capital investing in hydropower dams is producing new forms of resource control conflict in Myanmar's ethnic areas. Both papers in Chin State relate contemporary political ecologies of access to resources to the history of violent conflict and state strategies of nation building. One paper explores the emergence of transnational discourses such as "indigenism" by civil society networks in Myanmar, whilst the second explains how structural violence has produced a deforested landscape surrounding Hakha town creating water scarcity for its inhabitants.



## **Social Movement Resistance to Accumulation by Dispossession in Myanmar: A Case Study of the Ka Lone Htar Dam near the Dawei Special Economic Zone**

*Zaw Aung and Carl Middleton*

In late 2010, Myanmar's military junta government at-the-time signed a contract with Thailand's Italian-Thai Development Public Co. Ltd. (ITD) to build the Dawei Special Economic Zone, located on the Andaman coast in Tanintharyi Region of Southeastern Myanmar. Associated with the project was a water storage dam in nearby Ka Lone Htar village that if built would fully submerge the village consisting of 182 households, along with several thousand acres of plantations and natural forest. The majority of the Ka Lone Htar community holds a strong affinity for the village, forged by the past adversity that they have faced in building their lives there. In response to the threat of dispossession and relocation, and in the context of new political spaces opening in Myanmar, the Ka Lone Htar community successfully mobilized and resisted the dam.

This paper draws on Levien's (2012) reworked concept of Harvey's Accumulation by Dispossession (ABD) together with social movement theory, in particular on resource mobilization and political opportunity. The chapter is evidenced by ethnographic fieldwork and document analysis. We find that in the face of villager resistance to resettlement, the state attempted to deploy "extra-economic" means to relocate the village, including via coercive meetings, a divide-and-rule strategy among the community members, and general intimidation. Villagers resisted utilizing various strategies, ranging from first proposing alternative dam sites, to later outright opposing the project in the media and raising a complaint with the Thai National Human Rights Commission. Ultimately the state-private sector alliance weakened as the government's confidence in ITD waned, and the project appears suspended. Conceptually, the chapter finds utility in Levien's ABD, because it allows our analysis to account for the specificity of Ka Lone Htar village, including: its history and its relationship to the market (also drawing on Hall, 2012); the contemporary political dynamics between the community, the government and the private developers; and the mosaicked forms of property ownership within the village.

## **Transnational energyscapes and conflict in hydropower plans for the Salween River**

*Carl Middleton, Naruemon Thabchumpon, and Saw John Bright*

Thailand's growing national demand for electricity, alongside staunch public resistance to new power projects domestically, has led Thailand's state-owned electricity utility and private energy companies to seek power imports from neighboring Laos and Myanmar; a form of spatial fix. Hydropower dams on the Salween River, shared between China, Myanmar and Thailand, have been of particular interest, with at least 6 major projects planned within Myanmar alone. In Myanmar, stumbling political transformation towards democratization since 2010 and a liberalizing economy has attracted FDI. Meanwhile

Southeast Asia's economic regionalization, embedded within global economic flows, and Myanmar's incorporation into it partially facilitates these projects' possibility. Yet, within the ethnic states of the Salween Basin where the projects are proposed by the national government varying degrees of long-standing conflict continue. Whilst much has been made of Myanmar's peace process, a political agreement appears distant, and control and use of natural resources, including rivers, is a key negotiation point between ethnic armed groups and Myanmar's military.

This paper explores plans for cross-border electricity trade on the international Salween River through the intersectional lens of energyscapes and processes of conflict transformation. The paper focuses on the proposed Hat Gyi Dam, located in Karen State. The paper unpacks how a transnational network of Thai and Myanmar government agencies, state enterprises and private actors have sought to build the project, whilst local and transnational networks of communities, civil society and others have sought to challenge it. In doing so, the paper reveals the contestation within multiple-sited arenas and political-economic processes associated with electricity and water plans, policies, and actors, which intersect in attempts to either enclose the Salween River or resist its enclosure. The paper argues that transnational capital investing in hydropower dams is producing new forms of resource control conflict in Myanmar's ethnic areas.

### **Contested Frontiers: Indigenous Mobilization and the Politics over Land, Territories and Natural Resources in Myanmar's Upland Areas**

*Rainer Einzenberger*

Forming a part of what became known as "Zomia", Myanmar's upland areas are gradually being turned into formally administered, legible and governable state-territory. Following decades of violent conflict between the central state and ethnic armed groups, a series of ceasefire agreements since the 1990s opened the door for the central state's expansion into the ethnic frontier areas. Rich in natural resources and supposedly endowed with so-called "vacant" or "virgin" lands the upland areas constitute an important "resource frontier" for the country's economy. So far the expansion of state spaces into the frontier zones, as well as into the post-conflict environments where local ethnic armed groups entered into ceasefire agreements, remains contested. Civil society coalitions and networks are increasingly being formed to resist the state's strategy of "accumulation by dispossession" where the formation of state territory in the frontier areas is achieved through land policies and other state technologies. These civil society groups have made use of the emerging opportunities for political participation at various political scales following the opening of political spaces and the initiation of decentralization processes.

This paper aims to explore the production of national territory and capitalist spaces in the frontier areas by bringing examples from Chin State on Myanmar's western frontier.

Furthermore it will trace the increasing reference to transnational discourses such as “indigenism” by civil society networks in Myanmar which contest the extraction of natural resources in the ethnic frontier areas. One recent example is the formation of the “Coalition of Indigenous Peoples in Myanmar/Burma” which challenges the central states access to the frontier areas with recourse to international legal categories and standards such as the UN Declaration on the Rights of Indigenous Peoples (UNDRIP).

### **Structural Violence and the Production of Water Scarcity within the Militarized Landscape of Hakha Town, Chin State, Myanmar**

*Naruemon Thabchumpon, Carl Middleton, Van Bawi Lian, and Orapan Pratomlek*

The hilly landscape surrounding Hakha town in Chin State, Myanmar is the product of recent structural violence as the central state has sought to govern the country’s contested ethnic areas. This has included the clearance of forested hilltops: to construct a military base following a Chin uprising in 1988; and due to state-initiated large-scale agricultural projects, which have often failed. These activities have also catalyzed local agrarian transformations with the spread of smaller-scale agriculture into the hills by the population of Hakha town itself. The hills surrounding Hakha town, which until recently were densely forested, were the primary source of fresh water for the town. Deforestation has left the town increasingly prone to water scarcity in the dry season, and in the rainy season of 2015 the town also experienced a devastating flood.

This paper will map out the evolving – often contested – relationship between local, mainly ethnic institutions within Hakha town and the central government through the evolving political regimes of Myanmar(pre-1988; 1988-2010; 2010-present). It will explore the intersection of the Myanmar state’s structural violence and militarization with processes of nation building in ethnic areas, and how this has shaped the landscape surrounding Hakha town and produced (differentiated) water scarcity and environmental hazard for the town’s population. The paper will demonstrate how water scarcity has emerged as a growing issue of discontent between the town’s mainly ethnic population and the central Myanmar government, and therefore was also a bargaining chip in the 2015 election campaigns. Yet, the construction of a large water storage reservoir commissioned by the central state in the election process epitomizes the deepening projection of central state authority into Chin State.

## **26: Commodification, Violence, and Environmental Governance in Southeast Asia: from above, below, and beyond?**

Convenor: Peter Vandergeest, York University

The panel will explore conflicts, tensions, and debates associated with the programs to manage social and ecological transformations in mainland Southeast Asia, with a focus on both water (fisheries, aquaculture, rivers) and land (forests and plantations) resources. Our particular interest are the contemporary governance mechanisms associated with market-oriented valuations or de-valuations of specific resources, the entry of a range of actors in shaping peoples' access and management of ecologies, including not only conservation groups but also corporate buyers of products from these ecologies, the burgeoning auditing industry, citizen scientists, human rights groups associated with migrant labour abuse, and more. We will consider both the new exclusions or displacements that these mechanisms produce, as well as the re-distribution of incomes and livelihood derived from the exploitation of newly valued resources and niche markets. We will also be attentive to the ways that ecological change, especially resource degradation linked to deepening of capitalist relations, are linked to the impoverishment of livelihoods and coercive and exploitative labour relations in these sectors.

### **Dialectics of Commodification and Decommodification in Neoliberal Environmental Governance and Violence in Southeast Asia**

*Derek Hall, Wilfrid Laurier University, Waterloo, Ontario, Canada*

The study of commodification has been central to the ways in which political ecologists have approached neoliberal environmental governance and regimes. Most obviously, political ecologists have analysed the multifaceted commodification of nature itself. They have also examined the *commodification of violence*, focusing for instance on private security firms that guard conservation areas and on violent markets for slave labour in the production of resource-intensive commodities. Studies of environmental certification, too, identify what might be called the *commodification of governance*, as certifying organizations offer regulations on a competitive market and resource producers pay for the right to be recognized as following those regulations. More broadly, political ecologists often see the "commodification of everything" as being close to the heart of capitalism.

In this paper, I use contemporary Southeast Asian examples to make a more nuanced argument about commodification's roles in neoliberal capitalism and environmental governance. While neoliberal ideology and competitive market dynamics do push certain processes of commodification, they also press *against* certain potential commodifications. I highlight two of these. First, in markets for private certification, producers purchase the right not to be certified but to be *evaluated* against standards. If the certification itself can be

bought, it becomes worthless. Second, natural resources producers will struggle to be certified if they are discovered to have used private violence to seize assets and/or to have purchased slaves. In both areas, there is a tension between the strategies towards which competitive markets push firms (bribery, using hired thugs, slave labour) and the standards they must meet to be certified. I explain this tension through of a broader theoretical argument about how the spread of capitalism drives the creation and expansion of some markets but the repression and destruction of others.

### **Slavery scandals and capitalist relations in Southeast Asian Fisheries**

*Peter Vandergeest, York University, and Melissa Marschke, University of Ottawa*

Over the past year, scandals around so-called slave labour in the industrial fisheries sector in Southeast Asia have highlighted not only the connections between Northern buyers and Southern labour practices, but also the relative lack of research on fisheries labour in Asia and the Global South. This paper will outline the ecological and social transformations in ocean ecologies, the seafood industry, and labour processes in Southeast Asia that have culminated in reliance on work that is often considerably less than free as understood through the lens of an ideal free market in commodified labour. We then outline the emergence and persistence of a discourse on slavery and trafficking to describe work in fisheries, as well as the various market-oriented and buyer-driven schemes that aim to reduce buyer reputational exposure to these slavery scandals. Some of these are highly innovative in how they produce and broker information about the situation of specific workers on specific boats or production facilities, and in how they trace seafood supply chains. Finally, we borrow from the critique of the trafficking discourse in the migration literature to question the usefulness of the ultimately reductionist language of slavery and trafficking for understanding and acting in relation to complex labour relations that are clearly not a fully commodified labour market, but is in most cases poorly understood through the lens of slavery as well.

### **Forest Certification and Uneven Commodification in the Mekong Region**

*Keith Barney, The Australian National University*

This paper will explore current trends and contestations over forest certification in the Mekong region. Globally, forest certification has been portrayed as part of a decisive shift towards non-state or hybrid forms of market governance (e.g. Cashore, Auld and Newsom, 2004; Auld, 2014). However in the Mekong region including southern China, the progress of international third party certification, through either the Forest Stewardship Council (FSC) or its rival the Programme for the Endorsement of Forest Certification (PEFC), has been halting at best. Despite significant donor support, relatively limited areas of either natural production forest or plantation forests (corporate or smallholder) in the Mekong region are actually producing certified timber. This uneven progress with certification in the region is

related to the general paucity of global forestry firms or new institutional timberland investors that have made successful investments into the Mekong forestry sector— indeed the likelihood of achieving third party certification has by now nearly become a pre-requisite for Western multinational forest investment. Recent withdrawals of FSC sustainable forest management certificates highlight the deep governance constraints in Mekong forestry, particularly around customary land tenure and commercial land acquisition. In considering the last decade of experience of international forest standards in the Mekong region, this paper argues that forest certification is not simply notable by its relative underperformance. Even *in absentia*, certification actively shapes the range and activities of commercial actors who become involved in this sector and the form of resource commodification that occurs, and influences the value chains for Mekong forest products. For local communities in the Mekong, forest certification has not been able to deliver on the promise of less coercive, more equitable negotiations over land rights.

### **Negotiating Social=Nature Boundaries in Aquaculture Sustainability Certification**

*Lisa Van Wageningen, Wageningen University*

Sustainability certification, covering both social and environmental dimensions, is a relatively recent yet prominent feature of aquaculture governance. But while the social and technical challenges of implementing certification has been the focus of recent research, less attention has been given to the relation of these challenges to the process of standard definition. For a start, what are the consequences of treating social and environmental standards as different challenges? And how are social and environmental challenges defined, institutionalised and regulated in practice? This paper addresses these questions by retracing the WWF-led Shrimp Aquaculture Dialogue, a multi-stakeholder initiative that led the standards now owned by the Aquaculture Stewardship Council (ASC). The analysis focuses on principle two and three of the Standard that concern both the environmental and social impacts of the location of the shrimp farm. By focusing on sustainability certification as an assemblage, the paper analyses how social and environmental standards represent negotiated boundaries: how they have been constructed, including and excluding spaces, objects, subjects and expertise. The results demonstrate the contested nature of sustainability standards and the consequences of dividing social and environmental regulation in the context of aquaculture. The paper finishes with a discussion on how more inclusive and integrative standards might emerge from future multi-stakeholder initiatives and in existing third party certification standards.

## **Political Ecology of Feed Corn Production in Northern Thailand: Highland-Lowland Relations, Conflict and Violence**

*Chusak Wittayapak, Chiang Mai University*

Expansion of feed corn cultivation in the upper watershed forest in Northern Thailand has caused concerns over environmental problems in the lowland areas and the central plain of Thailand. This paper examined complex relations of production of feed corn by looking at the assemblages of political economic conditions that culminate in the increased areas of feed corn cultivation in the state forest land. Multiscalar conflicts of highland-lowland relations have in the past led to political violence such as road blockage and racial discrimination deeply rooted historical geography of Thai society on forest space and power. On-going debates over upstream and downstream environmental relations have played a part in policy implication on payment for ecosystem services (PES) through the proposed watershed fund. This is seen by many as a form of political reconciliation between highland and lowland of the locals and upstream and downstream of the regions.

## **Mundane Neoliberalism: market enabled fortress conservation and livelihood change in Northern Thailand**

*Robin Roth, University of Guelph*

While conflict and violence associated with conservation in inhabited landscapes continues to demand much needed attention in political ecology, significantly less attention is paid to the ways in which these residential communities persist within the context of displacement from their traditional resource base. Living within a territory governed by others for its aesthetic and conservation value, community members are enrolled in the production of those values at the same time they must earn a living. In this context, tourism, labour and agricultural markets are frequently promoted as the means of producing a conservation compatible landscape. This paper investigates conservation-induced livelihood change in Northern Thailand where the presence of different market based opportunities inside national parks are taken up in uneven ways, drawing our attention to how the expansion of capitalist relations does not happen in a field sterilized of social relations but is rather shaped, challenged and contested by them. Paying attention to these dynamics can help to explain how and why farmers choose to opt in or out of certain market opportunities (such as fair trade coffee production) but it can also help us to better understand the ways in which capitalism and market access is used in the service of territorial conservation and to what effect.

## **Exploring conflict within small-scale fisheries in Thailand**

*Courtney Kehoe, University of Ottawa*

Small-scale fishers in the village of Khan Kradaï, Thailand actively engage in community-based resource management through creating local rules and implementing various conservation projects (e.g. local crab bank and artificial reefs). While these community fisheries efforts appear successful, at first glance, the story is more complicated. A recent case of comb pen shell fishing shows how community fisheries efforts can easily be undermined by the activities of other small scale fishers 'outside' the main organized community fisheries group, with conflict ensuing between resource users.

Adopting a political ecology lens we see how firstly, the lucrative nature of the comb pen shell fishery provides incentive for individuals to exploit a particular resource, which local fishers argue results in significant environmental degradation. Secondly, how migrant labour facilitates continued operation in a fishery considered to be high risk due to the equipment used (e.g. compressor motor). And thirdly, how poor fisheries management and law enforcement on behalf of provincial and national level institutions due to lacking capacity (e.g. financial, physical and human capital) can prolong solutions and further exacerbate conflict.

## **The Land under Forest Canopy: A Governance Frontier**

*Xing Lyu, Yunnan University*

The land under the forest canopy becomes a new frontier for governance in China. Forests are classified as protective forests such as natural reserve, national park and public-interest forest, and commercial forests for timber production. Logging on commercial forests is heavily regulated through a quota system managed from central, provincial to county governments. Farmers or market operators have to apply for quota in order to cutting a tree. Therefore, farmers or forest operators shift to the focus on the land under the canopy because of the high transaction costs associated with logging business. The land under the forest canopy is less regulated than forest or specifically trees. Many developments take place on the land under forest canopy, which is owned by and traditionally open access to a community. These developments impose governance challenges to community, local government as well as market operators. This paper will identify governance issues via two case studies Yunnan Province of China, examine territory re-making process among community, local government and market operator, and discuss its impact on community livelihoods.



## 27: Natures in Tension: Ontological Politics in Environmental Contestation

Convenors/chairs: Annet Pauwelussen (Wageningen University) and Bas Verschuuren (IUCN Specialist Group on Cultural and Spiritual Values of Protected Areas)

Conflicts over nature often involve a (neo-liberal) ‘politics of who’ (*who* has access to resources, on *whose* terms?) – to the detriment of a ‘politics of what’: what enactment of nature is given primacy in environmental contestations? Paying due attention to the ‘politics of what’ means focusing on environmental struggles as sites where different realities meet; it also means the way in which political ecology engages with the growing field of political ontology. This panel discusses conflicts related to struggles over what nature is (or comes to be) in different environmental practices, and illuminates the ontological politics involved in such conflicts.

The panel draws together conceptual and empirical case studies that explore how natures and environmental worlds are enacted in different practices, and what other-than-human agents participate in this practice (potatoes, spirits, fish, rocks, metals, burial urns, water creatures, etc). Several cases show how in indigenous environmental ontologies human and more-than-human agencies participate in the continuous enactment of the world. Practices of tinkering and nurturing relations between these various agencies are worth considering as alternative forms of environmental care. Are these at odds with western/modern schemes of control and spatial demarcation for conservation (such as protected areas) or can different environmental enactments be combined?

Other cases show that ontological politics also undergird the different ways fishers, anthropologists, engineers, activists and so on enact environmental worlds. In these different enactments multiple natures are produced. How do they relate? Do they conflict, co-exist, interfere, or merge into something new?

The panel furthermore examines what lessons can be drawn regarding the conceptual and epistemic approaches required to give room to ontological multiplicity in the analysis of environmental conflicts. Part of this requires considering how studies of political ontology and political ecology may cross-pollinate one another to further constructive dialogue on what matters, how, and for whom in environmental contestations.

### **‘Clean’ Energy Production and Water-Energy Ontologies in the South of Chile**

*Maite Hernando, Wageningen University*

The south of Chile has many and mighty rivers, on whose banks human communities have settled for over 4.000 years (Adán et al. 2004). These communities are part of the Mapuche people, the largest indigenous population of the country whose territory extended in southern Chile and Argentina, but due to the military occupation by both national states, since the mid-twentieth century, those land and population were drastically reduced. This

was accompanied by a cruel colonisation, that meant the privatisation and division of land expelling the Mapuche people to be confined in reductions, situated in the worst agricultural lands. This hostile environment in some cases led to their migration. Nowadays, many Mapuche rural communities are confronting the Chilean nation-state around the issue of hydroelectric projects. It is around these projects, which are presented, as 'clean energy', where we find at least two opposite ontologies around the meaning of water and energy. One ontology is framed within the legislative framework of water created during the Pinochet dictatorship period. This implied the privatisation and the creation of water property rights, which can be exchanged in a private market, separated from the property of land. The other ontology is situated within the Mapuche cosmovision. In this, water and energy are not isolated entities, but they only exist as part of extension and intensity of the Itrofillmongen (biodiversity), and are sacred for being the Mollfün (vitality) of the Ñuke Mapu (earth). The present paper will address the ontological conflicts that are arising, as a result of the hydroelectric policies since 2005. In order to do this, the focus will be on the different entities mobilized through discourses, narratives, and practices referring to how energy and water are being placed on different world's understandings.

### **On Nurturing Water Creatures in the Peruvian Andes: Exploring Water Management Practices as Relations of Care**

*Carolina Domínguez-Guzmán, Andres Verzijl and Margreet Zwarteveen, University of Amsterdam*

In this article we explore the care relations of a canal and its operators. The Huallabamba canal is an inter-basin infrastructure in the Peruvian Andes that transports water from the Amazonian watershed to the arid valley of Motupe on the Pacific coast, for agribusiness production and maize cultivation. We argue that the water practices of these operators do not necessarily equate to those of managing and controlling water which modern irrigation (professionals) propose and perform. Rather, these are practices of caring, tinkering and even nurturing water creatures or spirit-endowed entities. One of the main conclusions of this article may be that the type of care needed to make function an irrigation system, co-exist simultaneously with practices of control, but is made invisible or dissolves in the managerial vocabulary of today's water management.

### **Water Clashes: The Many Natures of Water in Latin-American Environmental Conflicts**

*Cristóbal Bonelli (University of Amsterdam), Mourik Bueno de Mesquita (Centro Bartolomé de las Casas, Cuzco, Perú), Denisse Roca Servat (Universidad Pontificia Bolivariana, Medellín, Colombia)*

This paper attempts to conceptualize some of the lessons springing from the 7<sup>th</sup> International Course-Workshop on Water Justice in Latin America, held in Cali, Colombia in

November 2015 (<http://justiciahidrica.org>). More specifically, the paper explores how environmental and water conflicts in Latin-American contexts can be analysed through current dialogue between two different epistemic communities in the social sciences, namely, 'participatory action research' (PAR) and the so-called 'ontological turn' in anthropology and in science and technology studies. The paper explores how different concepts and skills provided by these epistemic communities help to overcome universalistic 'culturalist approaches' that conceive water as merely a natural resource with cultural meaning attached. By considering how ecologists, water activists, engineers, and anthropologists, -- among other water professionals -- enact particular water worlds under threat through creative, and experiential learning techniques, the paper raises awareness about the need to multiply the worlds and languages that are involved in water conflicts in Latin America. Reflecting on the lived experience of the course and considering seriously the feedback provided by the students, we conclude that water conflict analytics might benefit from 1) not taking for granted what water is and how it looks, 2) cultivating a genuine dialogue beyond academic worlds, and 3) developing a responsiveness that allows young water professionals, researchers, activists and authorities to 'change their vision' when facing multiple water worlds.

### **Coral Enactments: The Ontological Politics of Marine Conservation Outreach in Indonesia**

*Annet Pauwelussen, Wageningen University*

This article focuses on the case of marine conservation in Berau, Indonesia. Here, conservation agencies engaged in outreach to protect coral reefs and put an end to blast fishing, practiced by local Bajau. Outreach was framed as an issue of knowledge transfer to the Bajau about coral, yet it involved the enrolment of the Bajau into a particular environmental ontology based on 'western' conservation science. This land-based and land-biased ontology, however, did not hold its ground in the flows of marine life. Bajau enacted their aquatic world through the interrelation of human and more-than-human agencies (such as spirits, fish and currents) in tidal time. Bajau environmental practices resisted conservationists' attempts to protect coral reefs. These attempts and resistances are described in terms of *assemblages* - processes of (de)territorialisation in which different enactments of coral are at stake. I illustrate this with a case of a Bajau ex-blastfisher who was recruited by conservationists to educate the Bajau about the 'true nature' of coral. Following his practices shows that instead he was mediating different coral natures. More than a transfer of knowledge, conservation outreach thus entailed ontological politics: the translation of different coral natures in tension. Accordingly, the paper argues for mutual acknowledgement of the ontological difference such translation has to bridge. Translation, that is, itself needs to become more amphibious: able to move in and between different, partially connected, assemblages of human and more-than-human elements.

## **The Pebble in the Shoe: When Tourist Megaprojects, Fisheries and Gods Meet on the Nayarit Coast, Mexico**

*Francisca López Regalado, Gerard Verschoor, Wageningen University*

In this article we narrate and analyse the entanglements that obtain when fisheries, tourist bonanzas and sacred places affect one another on the Nayarit Coast in Mexico. More specifically, we describe how a series of rock formations (called *Haramara*) accidentally used for the construction of the new harbour of San Blas in 1975, gradually become citizens because of their capacity to transduce vital energy to Wixárica (Huichol) and Náyeri (Cora) Indigenous peoples. Conceptually, we recount this trajectory by weaving together dissimilar, human and more-than-human elements (deities, tourist concessions, man-made land, Indigenous Councils, a coalition of activists, overlapping local, regional, national and international laws and regulatory frameworks, fish, colonial titles to land, amongst others). In particular, we focus on the way in which different assemblages struggle to accommodate the more-than-human rocks in their territorializing quest. As it turns out, rather than being passively engulfed by the different assemblages in which it partakes, *Haramara* forms a *line of flight* – a new assemblage, a sentient body that learns to be affected, and affects its environment in new and unexpected ways. We conclude that in this process of becoming, the notion of what is political starts to change to encompass not only a politics of who, but also a politics of what.

## **Gold, Silver and Peyote: The Forces of More than Human Actors Opening up the Way for Commoning in Wirikuta Sacred Natural Site, Mexico**

*Oscar-Felipe Reyna-Jimenez, Wageningen University*

Precious metals underlie the surface of Wirikuta Sacred Natural Site. Huge deposits of gold and silver concentrate under the very ceremonial spots used for centuries by the Wixarika (Huichol) ethnic group as a pilgrimage destination and place for worship. Their cosmovision tells that Wirikuta is the place where the sun was born and where they have to go in order to recreate life cycles in their world and The World. In their yearly ritual pilgrimage, the collection and consumption of hallucinogenic Peyote Cactus -growing wildly all over the region- is essential. This sacred setting has been threatened by the possibility of opening large-scale mining projects to extract metals. Companies argue that the region holds a mining vocation and that local people need them to create development. Activists have perceived the gold and silver rather as a burden; a curse of development wobbling sacred Wirikuta. Non-indigenous local actors and former miners have opposed to transnational mining companies due to their harsh methods. Furthermore they are in favour of conservation because they also recognize certain more-than-human/spiritual forces acting all around this place, very similar to the ones recognized by indigenous. However, only indigenous are recognized by the Mexican state as legitimate opponents in this struggle because mystical particularities of the contested territory are assumed to come from them

only. Interestingly, in the struggle against the mining projects, mutations have occurred in actors: their boundaries (indigenous and non-indigenous) have been dissolving in certain ways in order to act pragmatically against external menaces. This paper discusses the assembling of materialities, affections and forces performed by metals and Peyote cactus in miners' and indigenous' ontologies to argue that the mutual recognition of these related ontologies can lead to an assembled conception of Wirikuta. Such assembled conception allows for: a) eroding binaries that still limit actors' agencies, b) legitimating both ontologies as part of a post-human entourage, and c) opening a way to conceptualize the sacred territory as the result of More-Than-Human Commoning.

### **Very Strong Stuff: The Material Liveliness of Australian Aboriginal Stone Artefacts**

*Steve Brown, University of Sydney, Australia*

Stone artefacts are ubiquitous across all parts of the Australian landscape. It is traditional in Western archaeological practice to treat such flaked and worked objects as inert – as 'relics' of past lifeways of Aboriginal people. However, treating such items as 'archaeological' denies their role in the wellbeing of Country and the wellbeing of present day Aboriginal individuals and communities. For many Aboriginal, and also some non-Indigenous people, stone artefacts are not inert or passive, but are resonant with 'material liveliness'. That is, they are 'vibrant, agentic things enfolded in social practice' (Byrne 2014) and have a 'material memory' (Olivier 2011) and energies able to be recollected and experienced in the present. Within this framing, stone artefacts can embody ancestors, ancestral places, the absent presence of known individuals, and attachments to place. In the field of Museum Studies, reconnecting contemporary Indigenous people with 'ethnographic' objects held in museum collections has increasingly become recognised as good practice and a rights-based approach. This approach is the basis of a recent exhibition, titled *Encounters*, that reveals stories of Aboriginal and Torres Strait Islander objects, including stone artefacts, from the British Museum (National Museum of Australia 2015). However, reconnecting present-day Aboriginal people with stone artefacts located during field survey and excavation is seldom evident in the field of indigenous archaeology or protected area conservation. In this presentation I review evidence for the material vibrancy of Aboriginal stone artefacts and the challenges for landscape conservation to account for the affective dimensions of such material traces. I propose a reformulation of the notion of conservation by drawing on ideas of entanglement and assemblage theory and argue for a conservation practice that engages with the potency of things.

## **Biodiversity Protection and the Fabric of Personhood in a Peruvian Potato Park**

*Olivia Angé, Wageningen University*

Throughout the Andes, discourses on the protection of biocultural diversity have become a pervasive feature of rural development programmes. In the Sacred Valley – Peru – six peasants communities supported by a local NGO have settled a Potato Park aimed at preserving tubers' agrobiodiversity and enhancing agriculture resilience to climate change. Drawing on ethnographic data from this *in situ* seed bank, the paper addresses the tension between conservation and commoditization processes in the Park. How concretely are these processes seen to affect seeds and tubers fertile potential? How is this potential related to social and individual reproduction? To tackle these questions the paper unfolds the 'cosmoeconomy' (Giovanni da Col) of potatoes posited by peasants. In this Andean region, where tuber cultivation is expressed in the idiom of kinship, this cosmoeconomy points to a local articulation between tubers and human reproduction. Thus, exploring the relation between commoditization and biodiversity protection in the context of institutional heritage practices unfolds an Andean conception of ecological environment conflating with human personhood and spiritual figures.

## **28: What nature is valued, what nature is protected? Extraction, conservation & social movements in Latin America**

Convenor: Dr Jessica Hope, University of Cambridge

In Latin America, new global environmental frameworks, such as the 2015 UN Sustainable Development Goals (SDGs), are being rolled out alongside increasing financial reliance on extractive industry in a contradictory situation where extractive industry is intensifying whilst global commitments to tackle climate change and ensure sustainable development gain momentum. Recent years have seen a growing extractive project in Latin America, which is transforming political regimes and development agendas. The impacts on landscapes are significant – Peru has the second-largest proportion of the Amazon rainforest after Brazil and has granted concessions for hydrocarbon exploration that cover 70% of this territory. Bolivia has become the most resource dependent country in Latin America (Veltmeyer & Petras 2014), following the election of the world's first indigenous president. These developments are causing patterns of social conflict as political movements challenge their effects on environments, rights regimes, and landscapes, as well the ways that they have influenced supposedly progressive political regimes (see Canessa 2014; Gudynas 2013; Bebbington & Bury 2013; Escobar 2010; Pellegrini & Arismendi 2012; Humphreys-Bebbington 2012; Humphreys-Bebbington 2010; Bebbington & A Bebbington 2010). Existing research concentrates on what these developments mean for politics, new political ideologies and notions of development (see Bebbington 2011; Haarstad 2012). This panel will move the focus to nature conservation - investigating competing responses to extraction in terms of how nature is valued and protected by both international conservation actors and place-based social movements.

This panel will critically explore the relationship between conservation institutions and environmental social movements as they respond to the intensifying pressures of extractive industry. Specifically, questioning how international conservation NGOs engage with social movements. This aims to build on crucial debates about the intersections and tensions between international conservation agendas, local needs and corporate involvement (see Chapin 2004), as well as to wider questions about how nature is encountered, valued and protected (see Castree & Henderson 2014; Adams 2014; Buscher et al 2012; Robbins 2011; Brockington, Duffy & Igoe 2009; Martinez-Alier 2003 ).

## **How to integrate natural resources into the global economy: Tensions and alliances between extraction, private protected areas, conservation and capitalism in southern Chile**

*George Holmes, University of Leeds*

In the last few decades, southern Chile has been seen by governments, industries and conservationists as a resource frontier, where the natural resources represent untapped riches to be incorporated into national and global chains of production. As a result of government support, improved infrastructure and a broad suite of political, economic and social changes, a variety of industries including forestry, hydroelectricity, carbon trading and ecotourism have sought to capture these resources, in a number of compatible and contradictory ways. There are both alliances and tensions both within actors promoting green growth, of varying shades and political perspectives, and against a variety of extractive industries with varying claims to green-ness, as well as broader debates about sovereignty and the place of international actors (conservation organisations and corporations) within this discussion. This paper explores the ways in which a variety of actors have sought to defuse tensions, form temporary alliances, and struggle against one another in order to determine how such resources should be used. It focuses particularly on the tensions within the private conservation movement, and disagreements on what counts as proper conservation, and the place of capitalist development within this. Crucially, it demonstrates the ways in which tensions and contradictions within the green economy can be resolved, ignored by actors, or undermine their efforts to reconcile capitalism and conservation.

### **Valuation of Nature Resources and Public-Private Conservation Policy in Chile**

*Andrés Rees Catalan (University of Lyon), Sylvain Guyot (University of Limoges) & Samuel Depraz (University of Lyon)*

*Cordillera Pelada's* Valdivian rainforests in Chile have faced intensive timber extraction for decades, encouraged by the State which, until 2012, subsidized 75% of profitable exotic species plantations. But their value as reservoirs of biodiversity has also been evidenced by the existence of public protected areas in the region since 1964. An important turn occurred in 2003, when the Valdivian Coastal Reserve was created, a 600 km<sup>2</sup> protected area owned and administered by the American NGO *The Nature Conservancy* (TNC). This private initiative fostered the public conservation policy, since TNC gave a further 100 km<sup>2</sup> area to the Chilean state for the creation of the first National Park in the region. This original public-private partnership, seemingly contrary to a global, neo-liberal trend in the management of natural resources, also appeared to be a successful turning point in the local way of thinking about the benefits associated with Valdivian forests. The subsistence-based local population, living from marine resources, is accustomed to seeing only the productive value of the forests. People are now rejecting the "old model" and are trying out new forms of economic values, in particular (eco-) tourism. However, who is really benefiting from this post-extractive



period? This communication will check whether the new protection framework is really efficient against logging, and whether communities located in the buffer zone are on an equal footing concerning the access to local development projects, in a context where every stakeholder is actually competing to take maximum advantage of the new conservation requirements.

### **Intended and unintended consequences of environmental discourses at El Quimbo hydroelectric dam project, Huila, Colombia**

*Cornelia Helmcke, Norwegian University of Life Sciences*

The water level rises at the vereda 'La Honda' in Gigante, Colombia since September. The dam construction by the transnational company Emgesa-Enel is in its final stage. The last peasants and fishermen left the area. The dammed water of the river Magdalena starts to cover the leftovers of fincas and wipes out natural grown cocoa trees, banana trees and mango trees covered with orchids. Despite destroying the most fertile area in the district of Huila and with it the local food system, Emgesa claims to do everything possible for biodiversity conservation. The company bought the land to the west of the flooded valley and started replanting the cacao varieties formerly found at La Honda. Its strategic plan states that it is one main goal to provide a refuge for local species and link isolated ecosystems. In my PhD research (to be carried out before July 2016), I will analyse the environmental discourses and forms of governance found in Colombia around the hydroelectric dam project 'El Quimbo'. What actors are involved, representing what kinds of interests? How do they use concepts, like conservation, sustainability, nature etc.? How does the local population in Gigante and the resistance movement 'Asoquimbo' translate this discourses in own language and practices? Is environmental awareness arising or is the opposite taking place? My key methods will be discourse analysis, interviews and participatory observation. I will talk with company and government representatives, workers in Gigante, as well as conservationists and forcedly displaced people by the project. Initial results and observations will be discussed in my paper.

### **Land of infinite wealth: building biosocialism in the ecuadorian amazon**

*Japhy Wilson, Manchester University*

Since the beginning of the Citizens' Revolution in 2007, Ecuador's economic policy has been framed by the 'transformation of the productive matrix', through which dependency upon the 'finite resources' of oil and minerals is to be replaced by a 'biosocialism' based on the 'infinite resources' of knowledge and biodiversity. One of the emblematic projects in this regard is Ikiam, a pioneering biotechnology university that is currently under construction in the Amazonian region of the country. Based upon extensive field research conducted in 2015, I provide a critical assessment of Ikiam, as an ambitious attempt to construct a 'post-neoliberal' form of socio-ecological relations. Drawing on the literature on the real

subsumption of nature to capital, I argue that the rejection of Marxist value theory by the organic intellectuals of the Citizens' Revolution has severely limited the transformative potential of this project. Instead of catalyzing a shift away from capitalist relations to nature, 'biosocialism' in fact implies a deepening of these relations through a transition from the formal subsumption of nature – based on traditional 'extractivist' activities, to the real subsumption of nature, based on the commodification of genetic sequences and 'ancestral knowledge'. The internal contradictions of this project, however, are ensuring that, in practice, it is only extending existing patterns of formal subsumption, through the reproduction of accumulation by dispossession and the reinforcement of rentier capitalism, while providing ideological legitimation for the ongoing expansion of the primary resource frontier.

**Defending nature? Extraction, conservation & social movements in the Isiboro  
Secure Indigenous Territory and National Park (TIPNIS), Bolivia**

*Jessica Hope, University of Cambridge*

This paper will critically explore the relationship between conservation institutions and environmental social movements as they respond to the intensifying pressures of extractive industry. Specifically, it will question how international conservation NGOs engaged with social movements in a conflict over the Isiboro Secure Indigenous Territory and National Park (TIPNIS), Bolivia. This aims to build on crucial debates about the intersections and tensions between international conservation agendas, local needs and extractive-led development (see Chapin 2004), as well as to wider questions about how nature is encountered, valued and protected (see Castree & Henderson 2014; Adams 2014; Buscher et al 2012; Robbins 2011; Brockington, Duffy & Igoe 2009; Martinez-Alier 2003). This paper concentrates on a social movement opposing road building in this territory, planned to run past pools of natural gas, examining their interactions with international and national non-governmental organisations (NGOs) and the state. Firstly, this research will examine shifting vocabularies of analysis, namely the ways that discourses of conservation adapt to this new political landscape. Secondly, it will explore whose natures are protected, by researching how the socio-environmental struggles of social movements are both included and excluded in conservation approaches. Thirdly, it will interrogate the effects of international conservation institutions on politics, meaning the ways they create, support or foreclose politicised spaces in which socio-environmental futures can be negotiated and (re)determined. In exploring this ongoing conflict, this paper highlights the ways that discourses of development, conservation and indigeneity are shifting to accommodate the state's extractive agenda and considers the implications of these shifts for conservation.

## **29: The Making of a Transnational Environmental Class?**

Convenor: Rob Fletcher, Wageningen University

Recent research has documented a growing network of alliances in environmental governance among representatives of international financial institutions, prominent NGOs, philanthropical institutions and private sector firms. Based on this, some have suggested that we are witnessing a transnational environmental elite in the making. This assertion builds on a substantial body of research debating the existence of a transnational capitalist class in governing the global economy as a whole, with some asserting the growing formation and dominance of such a class and others disputing such claims as overblown. Such debates suggest the need for similar problematization of potential transnational class formation within the realm of environmental governance in particular. This session therefore brings together researchers exploring various aspects of elite environmental networks to ask to what extent these networks can be seen as signaling the development of a transnational class in global environmental governance.

### **Neoliberal Environmentalism and the Global Power Elite**

*J.P. Sapinski, University of Oregon*

During the last two decades, a small number of scholars have documented the emergence of a transnational environmental elite. Research identified key elite organizations and individuals who participated in the construction of the now prevalent regime of green capitalism founded on carbon trading, biodiversity offsets, and other schemes that commodify aspects of nature with the aim of preserving them. In this presentation, I will contextualize the current research on transnational environmental elites by tracing back the theoretical and methodological advances at the root of elite studies. Starting with C. Wright Mills' classic sociological study of the 'Power Elite', I will outline the main theoretical and methodological developments in the study of the corporate and other elites. The rest of the presentation will look at recent studies of transnational elites and their intersections with neoliberal environmentalism. I will present analyses of the corporate climate policy elite, its organizational network and linkages with the transnational capitalist class, and its capacity to exert a degree of structural power on global climate policy. I conclude with a discussion of the relationship between the global power elite and environmental politics.

### **Competing Elites in Global Energy Markets**

*Nana de Graaff, VU University, Amsterdam*

This study tracks the development of Chinese oil elites and their primarily state-owned enterprises in their quest for energy since the early 90s when the Chinese government initiated the so called 'Going Global' strategy. China has since then not only become the

world's largest producer and consumer of primary energy (oil, gas, coal) - and subsequently the world's biggest polluter - but has also become a major investor in fossil assets and reserves abroad, as well as increasingly moved into the downstream part of the oil market. In this paper I will map the development of that global network of firm-to-firm relations, showing that the Chinese expansion into global energy markets has in fact not led to a 'locking up' of energy assets to the detriment of Western firms and interests, but to an *increase* in joint ventures and other hybrid alliances between Chinese state owned oil companies and the top of the global oil market, including both state-owned and private oil companies, many of them Western International Oil Companies (IOCs) such as ExxonMobil, Shell and BP. The paper then asks the question whether we also find such integration and cooperation at the level of the elite networks in which major oil company directors are often embedded and where corporate strategy and decision making is devised. Do Chinese oil elites integrate into the Western business elite networks or do they form competing networks? Are they adapting to the practices and rules of the game as inscribed in Western business communities or not? These questions will be answered in two ways: first by way of a comparative multi-level social network analysis on the basis of a biographical mapping of the directors of two Chinese major oil companies (CNPC and PetroChina) and two American majors (ExxonMobil and Chevron), assessing the corporate networks, policy planning networks and ties to the state of these oil elites. Second, on the basis of interviews and process tracing I aim to analyse and interpret the network patterns and answer the question to what extent and how the rising Chinese elites are competing with the elites and rules that have been dominant in 'carboniferous capitalism' throughout the last century, whether they are socialized into and adapting to those power structures, or alternatively maybe are carving out a hybrid trajectory of co-existence and partial adaptation.

### **Assembling Neoliberal Conservation: Articulation, Entanglement and the Distributed Power of Economistic Fields**

*Peter R. Wilshusen, Bucknell University*

Neoliberal conservation emerges from more than two decades of activities aimed at joining the language and practice of economics with the goals of nature protection, emphasizing economic incentives that seek to make nature legible and fungible. It depends upon a range of symbolic and material shifts to measure, commodify, establish markets for, and abstract nature through financialization. This paper critically examines how economistic assemblages unfold globally within the domain of neoliberal biodiversity conservation. What are the distributed processes that bring economistic conservation governance structures and processes into being and sustain them over time? To what extent do economistic assemblages facilitate the formation of new elite actor-networks? While a growing literature highlights the material, symbolic, and institutional transformations surrounding neoliberal conservation, it mainly focuses on what economistic processes produce and how as opposed to how economistic governance structures and processes emerge and unfold. A relational

view of neoliberal conservation confronts the challenge of accounting for a range of elements—discourses, actor-networks, organizational forms, social technologies—that constantly shift and change relative to overlapping institutional boundaries. From this perspective, power relationships and effects may be distributed across interconnected but differentially coordinated domains of activity. Conceptually, we draw from assemblage approaches, practice theory, actor-network theory, and performativity of economics to establish a conceptual vocabulary capable of capturing the articulations and entanglements of neoliberal conservation in practice. Focusing on neoliberal conservation initiatives framed in terms of “business and biodiversity,” “natural capital accounting,” and “biodiversity offsets,” the paper identifies practices of assemblage that animate and reproduce dynamic fields across institutional, spatial, and temporal boundaries. It then examines examples of fields in motion at major events such as the 2012 Corporate Sustainability Forum (part of Rio+20), the 2014 World Parks Congress, and the 2015 World Forum on Natural Capital to suggest how practices and performances align, articulate, and entangle discourses, people, and things. Finally, the paper explores the extent to which economic fields are performative, pointing to ways that people and things dialectically co-produce, enact, and materialize the world as economic. Distributed power unfolds as linked but dispersed sets of relations organized broadly around the language and practices of economics that continuously generate economic environmental governance arrangements in new contexts.

### **Environmental Protection and the Question of Class Consciousness**

*Kenneth Iain MacDonald, University of Toronto*

Historically, biodiversity conservation has been an expression of elite interests in the definition of ‘nature’, often in the form of the delineation of property in ways that facilitated the exclusion or domination of non-elites. While conventional organized conservation has long served as a site for capital accumulation, more recently environmentalism and environmental protection have become sites for capital accumulation. This shift from environmentalism as an oppositional to a reformist politics (one that is often attributed to neoliberalism) has been accomplished through the alignment and articulation of environmental organizations and institutions with the multiple interests of capital. Over the last decade this alignment has, at least rhetorically if not always in practice, privileged the role of finance capital in securing environmental protection and biodiversity conservation. Key to this shift has been a transformation in the qualities of organizations and actors, and how they qualify themselves and their actions. Environmental organizations have largely adopted a corporate form and managerial hierarchy; employees have constructed identities around the cultivation of ‘practical’ skills with exchange value and defined their environmentalism through their labour; shifts in the configuration of power relations around environmental protection have more closely articulated conservation with private capital; and positions of privilege within many organizations have been allocated to those who can

best secure access to private capital. The upper tier of conservation and environmentalism has mimicked the exclusive “c-suite” zone of the corporate domain. Expressions of this exclusivity are clear in the presence of conservation executives at economic gatherings like the World Economic Forum, and the presence of corporate executives at meetings of the major environmental conventions. Often it is difficult to distinguish one from the other. Appearance, dress and behavior yield little clue, and all increasingly share a common vocabulary – that of managerialism. But can we label these actors a common class? As finance capital has transformed environmental protection to a means of production do we find in their aesthetic and substantive expression the development of a collective consciousness built around their position viz finance capital, ‘the environment’, or professionalism? This paper uses ethnographic material collected from a series of field-configuring events to explore the quality of connections and relations among actors and to address the questions of whether a common class consciousness is being produced within these social connections and relations.

### **30: The role of the state and global governance in political ecology**

Convenor: Esther Turnhout, Wageningen University

#### **Anxious Integration: Developing Sri Lanka's post-war frontier**

*Thirun Kelegama, University of Zurich,*

This paper studies contentious forms of territorialisation and spatial dynamics that have been part of state formation processes in the northeastern Dry Zone in post-war Sri Lanka. Historically a peripheral scrubland, the Dry Zone can be defined as a frontier: a sparsely populated area, or zone, that appears to be of marginal utility, but where sovereign power seeks to control. From early attempts to civilise the jungle up to postcivil war development projects, this region has continually been subject to competing ethno-political projects and military intervention. Focusing on institutionalized settlement schemes within the Dry Zone that are part of wider development projects, I draw on ethnographic data to explore how the integration of Sri Lanka's northeast frontier into state controlled territory, can be used to inform and challenge our understanding of the complex and violent strategies that legitimise state formation in the margins. Field work in these highly militarised settlements reveals deep-rooted issues of exclusion and erasure of competing alternative narratives. The paper will examine the state's use of coercive and divisive strategies in order to maintain and legitimise control in the Dry Zone. It will also demonstrate that the process of state formation in this interstitial zone has created the conditions for the (re)emergence of nationalist discourses and politics. Through interrogating how state formation is imagined and realised in the contested political space of the northeastern Dry Zone, the paper engages with the changing relationship between state, territory and nation in postcolonial Sri Lanka.

#### **Scarcity, climate change and the construction of conflict**

*Catherine Clarke*

A global discourse has emerged, causally linking climate change with conflict. This discourse is employed by a striking array of actors, from national governments, to UN agencies and the military. It is not limited, however, to these powerful institutions – publications from NGOs, think tanks, policy reports and the media have all bought into this apocalyptic vision, largely outpacing the findings of academic research. As this discourse gains momentum, it is critical to ask who it serves, what other kinds of violence it conceals and who is most vulnerable to its impacts.

I take a political ecology approach to explore the climate conflict nexus. I analyse the logic behind the discourse and review the academic literature, arguing that a causal connection between climate change and conflict has not been established. Despite the lack of empirical

evidence the discourse persists. Through a deconstruction of the discourse's use by a range of actors I consider what implications it may have for vulnerability reduction in the global south and climate change mitigation in the global north. I will show how this discourse can absolve powerful actors of responsibility and jeopardise the adaptive capacity of marginalised communities, ultimately decreasing resilience and consolidating inequalities. Concurrently, this discourse deflects attention from the responsibility of powerful actors for mitigation through the securitisation of climate change. I assert that climate conflict narratives are in danger of becoming performative statements – statements that do not reflect reality, but which intervene in it.

### **The future of conservation territorialisation: beyond protected areas**

*George Holmes, University of Leeds*

Conservation often involves territorialisation, processes of creating, defining and enforcing spaces for nature through legislation, enforcement of regulations, and more discursive means. The creation of conservation spaces is often tied up in other processes such as state formation, as the state uses conservation to impose its presence on unruly rural frontiers, or capital accumulation, as land and resources are captured to be turned into green commodities, and these processes are subject to local contestation. Yet much of the literature on conservation territorialisation has focused on a narrow range of forms of territorialisation, particularly state-led protected areas. The purpose of this paper is to explore alternative ways in which spaces for conservation are being created, to describe the forms these spaces take, and the way they are embedded in broader processes of state formation and capital accumulation. For example, what is the role of protected migratory animals in creating new temporary spaces of conservation as they move under their own agency, crossing in and out of formal conservation spaces such as protected areas, and crossing national boundaries? How do spatialized conservation strategies occur in extra-state spaces such as the high seas and Antarctica? What about conservation spaces that have fuzzy and ill-defined boundaries, such as sacred sites, or which have strong temporal dimension, such as boundaries that vary by season and under environmental conditions – how are these spaces different, and how do they interact differently with broader processes of state formation and capital accumulation? This paper will be based on a review of existing literature.

### **Conceptualizing the state in Political Ecology – lessons learned from the German speaking debate**

*Christoph Görg (Institute of Social Ecology, Vienna), Melanie Pichler (Institute of Social Ecology, Vienna) and Ulrich Brand (Department of Political Science, University of Vienna)*

Since the 1980s, a specific approach to Political Ecology has been developed in the German debate, building on experiences from environmental struggles and new social movements



(e.g. the anti-nuclear movement) as well as certain academic traditions like the so-called Frankfurt School of critical theory and neo-Marxist approaches. To analyse the political dimension of environmental conflicts, the concept of societal nature relations (following the term “gesellschaftliche Naturverhältnisse” in the Marxist tradition) was introduced and further developed from a Gramscian historical-materialist state theory. The approach has evolved from a critique of various forms of social domination and domination over nature, conceptualized as interconnected processes. The presentation will *first* give a brief overview about the political and societal context of these debates and introduces the main conceptual foundations (e.g. an emphasis on the interplay of both material and symbolic dimensions of environmental conflicts). *Second*, we will elaborate on the conceptualization of the state in this political ecology approach and the respective role of socio-ecological conflicts. We emphasize the political form of domination represented by the (national, international and local) state while analysing carefully the societal conflicts and the relations of forces decisive for the concrete Gestalt of (multi-scale) statehood. Thus, the concrete form of (state) domination and its impact on environmental conflicts varies in the history of capitalism. *Third*, we critically engage with other PE approaches to the state by highlighting respective strengths and limitations. Particular emphasis is put on the conceptions of conflict, power, and violence.

### **Bureaucratic violence in the practice of global conservation**

*Sarah Milne, Australian National University*

Saving nature is a noble cause – one that now also generates value and purpose for the world’s conservation industry. A key manifestation of this industry may be found in big international non-government organisations (BINGOs) aiming to conserve global biodiversity, which have increasingly evolved into transnational bureaucracies, capable of exhibiting corporate behaviour. With bigness and bureaucratisation, however, virtuous deeds like saving nature can become increasingly complicated and entangled with the demands of organisational self-perpetuation – leading to a form of violence identified by Hannah Arendt as ‘rule by no one’. Herein arises a series of moral and ethical risks, unique to global conservation practice, which scholars of political ecology need to engage with more substantively. Using ethnographic case material on the operations of one major US-based conservation BINGO in Cambodia, this paper delves into the dilemmas raised by ‘the corporatisation of saving nature’ and in particular the bureaucratic or structural violence that can emerge from BINGOs’ efforts to maintain their reputations and brands, as well as their ‘licence to operate’ in a highly corrupt political environment. Through use of bureaucratic mechanisms like the US Foreign Corrupt Practices Act, independent auditors, and independent inquiries, this paper explores how conservation bureaucracies are able to shirk responsibility for corruption and organised crime such as illegal logging in protected areas, silence dissenters among their ranks, and constrain individual activists. These are all acts of violence, attributed to no one.

### **31: The State and New Perspectives on Conflict and Cooperation over Natural Resources**

Convenor: Maarten Bavinck, University of Amsterdam

Recent scholarship on conflict and cooperation over natural resources suggests that “the role of environmental factors is mediated through or combined with other factors, often of a socio-political nature” (Frerks et al. 2014). The projects funded by the Conflicts and Cooperation over Natural Resources (CoCooN) programme of the Netherlands Organization for Scientific Research (NWO/2010-2016) have taken this as the starting point for studies on a variety of resource conflicts in developing countries. These conflicts relate to mineral exploitation, land use and fisheries. All of them pit powerful corporate actors against more marginalized, yet resisting parties, woven together into complex patterns of political ecology. The panel gathers papers that have emerged to investigate the role of the state in mitigating or exacerbating resource conflicts. Authors variously consider the governmentalities employed, the criminalization of dissent, and the complex interactions of legal pluralism that occur. By comparing developments in at least two countries, significant variation in state activity are teased out and explored.

#### **Accumulation, Small-scale Fisher Resistance and Changing Governmentalities in India and South Africa**

*Ajit Menon (MIDS), Maarten Bavinck (UvA) and Merle Sowman (UCT)*

Recent literature on the political ecology of capture fisheries has highlighted how small-scale fisher resistance has impacted upon and shaped the nature of capital accumulation in fisheries. Small-scale fisheries are imagined as an alternative non-capitalist moral economy, not only a remnant of pre-capitalist ones. While such analyses are important, they tell only part of the story. The other part is how the state attempts to speak to, undermine or reshape these imaginaries through its governmentalities. This paper takes a comparative look at processes of capital accumulation within industrialized fisheries in India and South Africa, the resistance of small-scale fishers and the manner in which the state governmentalizes small-scale fisher concerns. The comparative dimension is useful as the nature of governmentalities in India and South Africa differ: in India, the state has taken a disciplinary approach by mapping out fishing zones for different sets of fishers whereas in South Africa the government has adopted the neoliberal ITQ approach. In taking a comparative approach, moreover, we hope to map out geographically specific processes of capital accumulation and its impact on small-scale fishers.

## **Formalization without adequate formats: small-scale gold mining in the Amazon**

*Ton Salman (VU) and Marjo de Theije (CEDLA)*

Arguably, conflict is gold mining's second name. In only very few situations do mining operations take place without some sort of conflicts accompanying the activity; and often various colliding stakeholders struggle for their interests simultaneously. State attempts to formalize and regulate however often fail to understand local dynamics, and consequently end in failure. As an alternative, we look into various types of conflicts and subsequently introduce a model for such conflict analysis, in which we distinguish between a structural dimension, concentrating on the 'underlying causes', a dimension of the actual interactions and confrontations; and the dimension of the 'preparation, 'equipment', of the actors: from what background, with which aspirations, do people come? And what identity, collectively and individually, did that background produce? Only taking into account, in particular, the latter dimension, we argue, will states be able to design and implement more successful policies.

## **Political Ecology Of Large Scale Agri-Investments In Ghana**

*Richmond Antwi-Bediako (UU) and Emmanuel Acheampong (Harvard University)*

This paper examines the effects of large-scale agri-investments on local livelihoods and rights using four agri-business cases in Ghana. Making use of the outcomes of the *Jatropha Curcas in Rural Land Use* project (NWO 2011-2016), it explores how local struggle to have access and control over land and natural resource use in the rural communities in Ghana are mediated by the relationship between social politics and power relations at the local level and political dynamics at the national and global levels. The research demonstrates firstly that large-scale agri-investment development has contributed to the dispossession of small-scale settler farmers. Secondly, it shows how rural land spaces and resource rights are drawn into the national and global politics of agri-business that instigate conflicts situations amongst these farmers, land owners and investors.

## **Political ecology of the 'extractive imperative': Criminalization of dissent in Latin America**

*Murat Arsel & Lorenzo Pellegrini (ISS/Erasmus University)*

One of the prominent features of contemporary development politics in Latin America is the prominent role of the putatively post-neoliberal state. Eschewing aggressive redistribution policies, they have instead sought to achieve rapid, poverty reducing growth accompanied with largely expanded expenditure for social policies. An 'extractive imperative' was born as natural resource extraction came to be seen simultaneously as source of income and employment generation but also of financing for increased social policy expenditure.

A particularly salient feature of this mode of governance has been the criminalization of environmental dissent. Specifically, individual activists and non-governmental organizations alike are being aggressively (and falsely) prosecuted by state officials who make allegations that include terrorism and treason. This paper discusses the broad economic and geopolitical context within which environmental dissent is criminalized and interrogates the changing relationship between nature, capitalist development and political subjectivities in Latin America.

## 32: Political ecologies of the military

Convenors: Benjamin Neimark (University of Lancaster)

Environmental security back with a vengeance. From Rep. Bernie Sanders to Prince Charles, a hegemonic discourse linking climate change, environmental degradation and conflict is galvanizing political and military action worldwide. This is of keen interest to political ecologists concerned with how the emergence of militarized environmental futures will have dramatically uneven impacts across and between individuals, groups, and the environment more broadly. However, it remains rather unclear what a political ecology of the military looks like. How do we conceive the military as an ecological force and what does placing military practices and discourses at the centre of a political ecological analysis tell us?

This CFP has a two-fold aim. First, to demonstrate what a political ecology approach bring to understandings of militaries, and second, (how) does putting militaries at the centre of political ecological analyses enrich the ways we conceptualize the approach? While we are particularly interested in papers that do political ecology of conventionally-conceived national militaries, papers may also explore the interfaces of state military and non-state militarized actors (i.e., militias, mercenaries, NGOs) across a variety of settings and environmental concerns. While non-state actors, civil society, social movements, and supranational institutions continue to take on increasingly important roles in the world, national states remain a, if not the, key locus of policy and practice. One of important state institutions is that of militaries, yet militaries remain largely absent in political ecology, except in some accounts of sacrifice zones and the adoption of military practices in wildlife conservation. Political ecology is nothing if not promiscuous in its encounters with other disciplines and approaches, and so we are actively interested in papers that borrow concepts, terminology, and empirical foci freely from engagement with IR, political geography, security and studies, among others.

We want to open the debate and discussion around what a specific focus on the political ecology (broadly defined) tells us.

Possible topics include, but are not limited to:

- 'Humanitarian intervention' and ecological change
- Military sacrifice zones
- Military responses to climate change
- Military coups and the environment
- Military accounts of ecological degradation
- Political ecologies of war-induced environmental calamity
- The new 'ecological' imperialism

- Military repurposing of non-human animals
- Political ecologies of military bases and installations
- Ecological consequences of the dronification of warfare
- Military interventions into agro-food systems
- Military engagements with environmental commodities and tradeable permits

## **Weaponizing nature: The 'Great Green Fleet' and the US Navy's Foray into Advanced Biofuels**

*Patrick Bigger & Benjamin Neimark*

The United States military is treating climate change as a crucial factor in its preparation for future conflicts. This enhanced attention manifests not only in strategic planning and forward looking documents, but also in building infrastructural capacity and materiel provision. The impetus to 'green' the military goes beyond the deployment existing technologies, however. As part of its 'Great Green Fleet' initiative, the US Navy has been actively supporting the development of advanced biofuels. These biofuels promise to reduce military reliance on conventional fossil fuels and reconfigure its energy sourcing in a way that reduces dependence on imported hydrocarbons in the short term with an eye toward ultimately severing the logistical relationship between existing energy infrastructures and the spaces of military intervention. We approach these developments through a political ecology approach to the military. We demonstrate how the US Navy's narrative about 'climatically changed futures' combines a vision of resource conflicts with a greened military Keynesianism to support the development of technologies that will radically liberate constraints imposed by the need to deliver fuel to 'far flung' and emergent front lines. We argue that while on the surface this may appear to be another case of militarized greenwashing, in reality it signals a fundamental shift in the territorial logics of 'new imperialism' that is intertwined with a dystopic vision of climate change which the US military played a significant role in creating.

## **Biodiversity policing in protected forest areas in Zimbabwe: situating military practices**

*Tafadzwa Mushonga, University of Cape Town and Research Officer, Forestry Commission of Zimbabwe*

The Forestry Commission (FC), a state agency responsible for forest management in Zimbabwe, introduced militarised forest policing two decades ago as part of its exclusionary conservation approach. This was done by establishing a forest protection unit (FPU) comprising of armed forest guards. The reasons for change in strategy were many but largely included the quest to control people's behaviour in the forest reserves. However, this change came with consequences for local people's access rights and implications on a bundle of other rights. Since the establishment of the FPU 25 years ago, no systematic study

has been conducted to understand the operations of this militarised unit and the effects arising from their operations on local people's rights within Zimbabwe's forest Reserves. In general also, few studies have systematically examined forest policing practice and the consequences of having a militarised forest policing unit controlling a largely civilian domain. By examining forest policing practice in the forest reserves of Zimbabwe, this paper examines how in practice militarisation in protected areas unfolds as well as the consequences of militarised practices on local people's rights.

The paper provides a broad historical analysis of the case study area, people-nature relationships and the history of forest policing. It shows how ideology and discourses about forest conservation have shifted forest policing over time, and how local people-nature relationships and people-state relationships have consequently evolved. As such the paper contributes to on-going debates about militarisation of biodiversity conservation and political ecologies of conflict (Duffy 2010, Lunstrum 2014, Duffy 2015) by providing the peculiarities of forested landscapes and Zimbabwe.

### **Typologies of violence on the front lines of the “war” on poaching**

*Francis Massé, York University*

Political-ecological analyses of conservation-related violence, or green violence, highlight how such violence is often driven by processes of conservation's militarization and nature-based capital accumulation. I contribute to these debates by adding a different perspective of these processes as gained from ethnographic fieldwork in two of the world's most intensive commercial poaching hotspots – the South African-Mozambican borderlands adjacent the Kruger National Park and Mozambique's Niassa National Reserve. Specifically, I examine the routine and day-to-day violence that emerges from the production of subjectivities as part of the militarization of conservation and the ways in which capital incentivizes violence and conflict by those on the poaching and anti-poaching side of the “war” on/for wildlife. In addition, I highlight two more important dynamics that shape violence on the front lines of the poaching crisis, namely those related to ideas of justice and those focused on violence as a tactic of fear. Starting with the dynamics of militarization, capitalization, justice, and fear I thus attempt to elaborate a typology of violence associated with commercial poaching and efforts to combat it. After describing these four types of violence, I examine how they emerge, what motivates them, and how they manifest themselves on-the-ground, contribute to, and ultimately shape conflict and violence between poachers, those combating it, and those caught in the middle. I conclude by calling for more ethnographic research focused on both sides of the environmental crime boundary. Such an approach is necessary to further a nuanced understanding of the forms green violence takes, why, and how they are connected to local dynamics and broader systemic and structural processes.

## **Counterinsurgency for Wind Energy: The Bii Hioxo Wind Park in Juchitán, Mexico**

*Alexander Dunlap, Vrije Universiteit Amsterdam*

Sustainable development and climate change mitigation policies, Dunlap and Fairhead (2014) argue, have instigated and renewed old conflicts over land and natural resources, deploying military techniques of counterinsurgency to achieve land control. Wind energy development, a popular tool of climate change mitigation policies, has consequently generated conflict in the Isthmus of Tehuantepec (*Istmo*) region in Oaxaca, Mexico. Research is based on participant observation and thirty-three recorded interviews investigating the Fuerza y Energía Bii Hioxo Wind Farm on the outskirts of Juchitán de Zaragoza. This paper details the repressive techniques employed by state, private and informal authorities against popular opposition to the construction of the Bii Hioxo wind park on communal land. Providing a brief background on Juchitán, social property and counterinsurgency in Oaxaca, this paper analyzes the development of the Bii Hioxo wind park. It will further explore the emergence of 'hard' and 'soft' counterinsurgency techniques used to pacify resistance against the wind park, enabling its completion next to the Lagoon Superior in October 2014. Discussing the subsequent environmental impacts, this article concludes that the Bii Hioxo wind park has caused violent social divisions, damaged subsistence and cultural practices with severe consequences and implications for Indigenous populations in the region.



### **33: Violent Neoliberal Environments: The Political Ecology of “Green Wars”**

Convenors: Robert Fletcher, Wageningen University & Bram Büscher, Wageningen University

In this panel we ask whether we may be witnessing the rise of a novel strategy for environmental governance within the neoliberal era, namely the advent of what several different researchers have recently labeled “green wars.” Our particular use of this term is meant to extend Foucault’s inversion of Clausewitz’s famous dictum that politics can be seen as war by other means into the arenas of environmental and conservation governance, which are currently infused by intensified forms of conflict and violence. On the one hand, we see growing violence “against” nature through wildlife crime, resource extraction, land conversion and the like, while on the other hand we also witness an increasingly violent defense of nature to ensure its conservation and preservation. Thus a focus on “green wars” enables us to bring together a number of recent discussions focused on “green gabbing,” “green militarization,” neoliberal conservation, the relationship between neoliberalism and violence, and the political ecology of violent conflict. We ask to what extent a “green wars” descriptor is warranted by these combined trends and if so, how such wars can best be analyzed. Is this merely biopolitical business-as-usual where the “optimization” of some forms of human and non-human life requires the letting and/or making die of other forms? Or is there a novel form of (neoliberal) biopower at work here? Phrased differently, is this a new marriage of neoliberalism and violence at work, or simply accumulation by dispossession yet again? Are these trends about bringing the logic of war into conservation? Or about incorporating conservation into an overarching war-focused geopolitics? How, in short, might political ecology be mobilized to analyze this latest stage in the ongoing saga of environmental conflict?

#### **Nature’s Prototerritories: From Biopower to Ontopower in Conservation and Sustainable Development**

*Bram Büscher, Wageningen University*

Much recent literature on conservation and sustainable development employ Foucault’s concepts of biopolitics and biopower to understand how human and non-human life is governed and ‘optimalized’ in late liberal societies. Building on Brian Massumi’s recent exposition of ‘ontopower’ – an ‘environmental power’ that “alters the life environment’s conditions of emergence” – this paper builds on and moves this literature forward by exploring whether we are seeing a move from bio- to ontopower where the imperative is less the building of systemic forms of governmentality to ensure life’s optimization (‘making live, letting die’) but on processually pre-empting incipient tendencies towards unknown but certain future threats to life (‘reactivate or die’). Ontopower therefore focuses on the question of how to prevent nature’s destruction in the future through preemptive measures in the present. It intervenes not in territory, but in nature’s ‘prototerritories’: a field of

application whose potential emergence must be actualized in the present. Building on empirical research on violent responses to rhino poaching in South Africa as well as developments in the field of conservation biology (i.e. the 'new conservation') and sustainability science (i.e. adaptation, resilience), the paper concludes by speculating whether war is becoming the new 'positive' ground for the optimisation of (future) life.

### **War, by Conservation**

*Rosaleen Duffy, SOAS, University of London*

In this paper I argue that there has been a critical shift towards *war by conservation* in which conservation, security and counter insurgency (COIN) are becoming more closely integrated. In this new phase concerns about global security constitute important underlying drivers, while biodiversity conservation is of secondary importance. This is a significant break from earlier phases of fortress conservation and war for biodiversity. In order to develop a better understanding of these shifts, this paper analyzes the existing conceptual approaches, notably environmental security analyses which seek to understand how resources cause or shape conflict, and political ecology approaches that focus on the struggles over access to and control over resources. However, this paper indicates the limitations of these existing debates for understanding recent shifts, which require a fresh approach. I chart the rise of the narrative I call *poachers-as-terrorists*, which relies on the invocation of the idea that ivory is the *white gold of Jihad*, a phrase which is closely associated with an Elephant Action League (EAL) report in 2012 which claimed Al Shabaab used ivory to fund its operations. This narrative is being extended and deepened by a powerful alliance of states, conservation NGOs, Private Military Companies and international organizations, such that it is shaping policies, especially in areas of US geo-strategic interest in Sub-Saharan Africa. As a result conservation is becoming a core element of a global security project.

### **"The Mother of All Wars": Institutionalizing Green Violence**

*Robert Fletcher, Wageningen University*

Calling biodiversity conservation the "mother of all wars" has recently moved from hyperbole employed by sensationalistic media to a growing reality in many parts of the world as conservation managers increasingly employ military personnel, tactics and weaponry to achieve their aims. This paper explores the process by which such "green violence" – that employed in the explicit name of protecting nonhuman natures – has thereby transformed from its historical association with countercultural activists who commonly used it in explicit opposition to state forces to institutionalization within state apparatuses themselves. The global environmental movement has long debated the legitimacy of employing violence in "defense of Mother Earth." Recently, however, green violence has increasingly been adopted by state forces themselves, while the level of violence considered legitimate within this perspective has increased tremendously to

including the violent killing of humans, something that all but the most extreme environmental activists would have rejected in years past. If the state is to be seen, *qua* Weber, as defined most centrally by its claim to monopolize legitimate violence, then state endorsement of green violence essentially legitimizes this violence and its intensification to an unprecedented degree. This paper explores the implications of this trend in terms of the changing nature of biopower in the world today, with the justification of killing some (human) lifeforms in terms of the threat posed to other (nonhuman) lifeforms now increasingly institutionalized within a nation-state order wherein such biopolitical logic has long been employed as justification for state-sanctioned killing of humans by other humans in other realms.

### **Natural Capital Must Be Defended: Neoliberal Biopolitics and the Problem of “Green Wars”**

*Wolfram Dressler, University of Melbourne*

This paper brings together and analyzes three recent trends in environmental politics: a dramatic increase in “green violence” or “green militarization,” the intensified justification of environmental protection as defense of “natural capital,” and growing evidence that in environmental marketization very little funding has entered actual market transactions thus far. We argue that these seemingly paradoxical findings can be explained through an analysis of neoliberalism as form of biopolitics seeking to defend life by demonstrating its profitability and hence right to exist. This can lead to a process of what we call “accumulation without commodification” in which resources are consolidated in elite hands and marketization deepens even while the environmental commodities these resources are intended to create largely fail to develop. The actual mechanisms through which this works was hinted at by Foucault in his original lectures from which the article title is derived, namely an understanding of governance as war. Yet, this is no longer (just) the wars of classes or “biological confrontation” but what we refer to as “green wars,” an extension of the by now more familiar idea of “green grabbing” that focuses on how dynamics of state-centered securitization that would seem to exceed or oppose logics of capital accumulation paradoxically strengthen the core logic of capital itself. In this process, neoliberal forms of governance are promoted and expanded, “defending” conservation is inextricably linked to maintaining associated markets, and resistance to such developments is repressed by invoking the greater global good.

## **“We Must Teach Them, It Is the Only Way”: Conservation and the Ideological State Apparatus**

*Jared Margulies, University of Maryland Baltimore County*

The recent publication for the first time in English of Louis Althusser’s *“On The Reproduction Of Capitalism: Ideology And Ideological State Apparatuses”* (2014) marks an important moment to reconsider Althusser’s theory of the Ideological State Apparatus (ISA) in the context of new forms of violence enacted upon, and on behalf of, nature. In this paper I will reflect on a series of events to explore how Althusser’s (1971) theory of the ISA is especially relevant for making sense of the everyday practices and discourses employed by state forest departments in southwest India attempting to recast violent conflicts between themselves and local communities over access to natural resources as a debate over managing human-animal relations and conserving endangered megafauna. I argue that through the lens of the ISA, a coherent logic emerges to understand the performance of reducing “man-animal conflict” by the state conservation apparatus as both a means of quelling revolt and an opportunity to ensure the territorial separation of local communities from Forest Department controlled spaces. I will examine these concepts through the killing and designation of a “man-eating” tiger and the subsequent violent protests which erupted on the Tamil Nadu-Kerala border in South India in 2015, and my participant observation during two annual “Walk for Wildlife” marches in Wayanad, Kerala. In the context of political geographies of animal conservation and eruptions of violence in which humans and animals alike have the potential to kill and be killed, the concept of “green wars” makes revisiting the ISA as a framework for studies in political ecology timely.

## **Difference is Dangerous: Conservation Displacement as a Security Strategy**

*Libby Lunstrum York University & Megan Ybarra University of Washington*

The recent upsurge in the securitization of conservation practice has led to often spectacular violence and human rights violations, ranging from the state-sanctioned killing of perceived environmental transgressors to military sweeps of parks during “states of emergency” that suspend *habeas corpus* rights. Resting beneath these violations are more subtle, often hidden forms of violence, ones with profound implications for biodiversity and land justice agendas. Drawing on empirical work from two borderland conservation areas—Mozambique’s Limpopo National Park (LNP) and Guatemala’s Maya Biosphere Reserve—we show how security fears have become a key rationale for the political moves to sever tenure rights and physically displace communities. In the LNP, this is tied to commercial rhino poaching across the border in South Africa’s Kruger National Park, while in Maya Biosphere Reserve, this is tied to drug trafficking. Such security-related conservation displacement, we show, turns on the deployment of interlocking tropes of difference rooted in colonial and Cold War histories that converge in the image of the racialized insurgent or subversive. Together, these reframe residents of these conservation areas as potential security threats

to both conservation and security agendas. Such securitized conservation hence interferes with possibilities for productive dialogue between biodiversity and land justice agendas, where supposed criminals lose their legitimacy to make land claims. In tracing how security forces dangerously use narratives of difference in performing their own violent acts, we call attention to the ways these are detrimental to social justice and biodiversity alike.

### **Remote Control: Technology and the Coming Environment Wars**

*James Fairhead University of Sussex*

The relation between militarization and environmental governance is technological as well as mercantile. Approaching their relationship simply from neo-liberal economic logics is inadequate, as "environments" also come to be known through this technological dimension which shapes interventions. Thus whilst the era of colonial land conquest was undoubtedly driven by capital, it was enabled by technological developments in arms and logistics - in communication, surveying, mapping, and air photography. This was key to colonial environmental science and the demarcation and management of parks. Yet from the 1960s the era of 'neocolonialism' heralded an era of 'remote power', whether associated with neoliberalism, neo-Stalinism and their cold and proxy wars, and this era of "remote control" was itself also enabled by technological developments in stratospheric spy-craft, intercontinental weaponry, and space-based monitoring and communication; remote technologies which further gave shape to the environmental sciences and monitoring (e.g. to real-time monitoring). The era of "Remote Control" in military warfare and in "knowing-the-environment" is, however, intensifying apace and we need to find ways to recognise this transformation. 'Remote sensing' has expanded in scope to go well beyond light and heat. Digital traffic is monitored remotely to record 'mobility' (using mobile phone data) enabling the military surveillance, for example, that assisted Ebola epidemic response. The digitization of society has become legible as meaning can be machine-read remotely from 'big data' heralding the new intelligence revolution. Remote sensing can hear, too, as eavesdropping technologies turn phones into bugs, and it can "smell" remotely as well, through the chemical signatures of spectroscopy. All senses through which we can know environments have become remote. Animals are enrolled in this digital era as the collars and tags zoologists attach make them digitally communicative to remote analysts. And what is true of knowing-the-environment is driving logics of interventions, as park management as well as war shift to drones rather than 'boots on the ground'; to smarter (more remote) forms of conservation. This paper argues that if we are to understand the relationship between neoliberalism, the 'environment' and militarization we need to couch this within a broader analytic of 'remote control' that goes far beyond neo-colonialism, and resembles science-fiction more than recent history. What desires are instilled and envisaged by this all-knowing, absentee science and governance? What contradictions emerge on the ground between those living in the landscapes that are the subject to it?

## **From Green Peace to Green War: The Changing Ethos of Anti-Whaling Activism**

*Gülin Kayhan, Waseda University*

This article juxtaposes two moments in the history of anti-whaling activism: June 1975, when Greenpeace activists confronted Russian whaling ships, and November 2008, the premiere of the docu-drama *Whale Wars* which documents Sea Shepherd Conservation Society's efforts to halt Japanese whaling operations. The intention is to highlight the disparity in the language used by the activists when confronting the whalers. In contrast to Corotva's message of peace and planetary brotherhood, *Whale Wars* activists declare hatred and intention to eradicate. Direct action tactics are used in both cases. However the idealized persona of the activist, and the imaginary for the aspired-for-collective are very different. This article offers two explanations: (1) Greenpeace activists intended to engage an imagined global citizen who would -once aware- debate with different-but-equal others for a common future, whereas *Whale Wars* is a marketing strategy to appeal to a consumer who finds confrontation, risk-taking and piracy cool and effective in taking out the bad guys, now! This suggests that "the psychology of identification" of "the vocabulary of community" (N.Rose 1996) resonates more with activists than before. (2) The goal of the Sea Shepherd Conservation Society is to assemble a counter actor-network that could target the Japanese whaling actor-network concretely where it takes whale lives. This suggests a move away from "the social movement repertoire" (Tilly 2008) of Greenpeace activists who hope to disrupt government programs through public pressure. This bypass of the political sphere can be seen as a reaction to the state of affairs, however this tactical pragmatism leaves unexamined the politics of environmental governance. This article argues that the rising prevalence of war logics in anti-whaling activism can be analyzed as the interplay between a particular psychology of identification and this tactical pragmatism, both of which emanate from the increasing pervasiveness of neoliberal practices.

### **34: More-than-human political ecologies: addressing multispecies justice in neoliberal times**

Convenors: Krithika Srinivasan (Exeter University) & Clemens Driessen (Wageningen University)

This panel explores the potential for a more-than-human political ecology. Political ecology as an analytical and activist framework has been largely anthropocentric in its focus on human vulnerability and social justice. Broadly speaking, political ecological scholarship has theorized the political, economic and cultural factors that mediate human-nature interactions, emphasizing how both environmental risks and environmental protection disproportionately impact marginalized social groups.

While a growing body of political ecological work points to the common foundations of the social and ecological impacts of neoliberal development, the chief concern continues to be mainly the human (for exceptions see e.g., Emel and Neo 2015; Collard and Dempsey 2013; Srinivasan 2015). The sustained anthropocentrism of political ecology is surprising in the light of the rise of animal studies as a legitimate field of scholarship involving a range of disciplines, including (more-than) human geography, sociology, history, science studies and anthropology; these are fields/disciplines which also happen to inform critical debates in political ecology. This academic interest in animals and the more-than-human has followed in the footsteps of significant public concern and social action about the impacts of contemporary human lifestyles on nonhuman animals and other forms of life on the planet.

In many ways, the roots of these 'more-than-human' concerns lie in the very same political-economic and cultural systems that are the subject matter of political ecology. This raises questions about the (mostly absent) place of animals and the more-than-human in political ecology. In particular, this panel asks whether political ecology can and should take animals (and other forms of nonhuman life) and their vulnerabilities seriously, and what doing so entails methodologically, conceptually, and in practice. For instance, what insights can a political ecological framework offer about the complex ways in which animals are made vulnerable by contemporary social systems? Can the interests of marginalized human and nonhuman life be aligned, or are they often found (or made) to be in opposition? Can political ecology as a field of scholarship contribute to pressing questions of animal justice?

This panel convenes papers that experiment with a non-anthropocentric political ecology by applying the tenets, insights, and analytical frameworks of political ecology for the critical investigation of the subjectivities, agencies, vulnerabilities and wellbeing of animals and other nonhuman life-forms.

## **Animating a crisis archive: contesting the “animals-as-resource” frame in political ecology and beyond**

*Rosemary Collard, Concordia University*

The 1989 *Exxon Valdez* oil spill in Prince William Sound, Alaska, was a death-dealing catastrophe for millions of animals. For juridico-political reasons, the event and its aftermath were meticulously documented and archived. In these archival materials, wild animals are persistently designated as assets, or resources, represented by tracking numbers, carcass tags, and death counts.

The *Exxon Valdez* crisis archive is not unusual in this regard: in most North American jurisdictions, wild animals are only legible under the law as resources, or property, and this frame is so pervasive in society that it might be considered common sense. Perhaps more surprising is that this frame is also dominant in political ecology. From fish to cattle, sheep and goats, sea turtles, and horses, political ecologists have examined animals as natural or physical resources around which swirl politics of access, capitalist logics, and contested property regimes. In this work, animals tend to remain abstract, standard and uniform, mimetic of their treatment in capitalism and under the law.

In response, this paper interjects a central question in relation to the *Exxon Valdez* spill and political ecological thought: what difference does it make to our analyses and understanding of crisis events if we consider animals as subjects rather than resources? Carrying out an analysis that registers animals as not merely resources requires different methodological and theoretical tools. Focusing on the former – methodology – in this paper I offer several mini “zoo-biographies” of sea otter pups who were captured during the spill cleanup and distributed to aquariums across North America and Japan. In doing so, I begin to re-write the archive of the Exxon spill and offer to political ecology an analysis of crisis that centers the animal subjects so often rendered inert, marginal or even absent in the discipline’s critiques of disaster capitalism.

### **Towards a Marxist animal geography?**

*Camilla Royle, King’s College London*

Political ecology has often drawn on insights from Marxism to understand, critique and contest the specifically capitalist ways in which natures are produced. However, Marxist or dialectical approaches have sometimes been seen as having little to say about the subjectivity or materiality of animals and other non-human life forms. Although there are now several book-length studies of the implications of Karl Marx’s own thoughts on nature, he wrote very little on animals specifically. Furthermore, as John Bellamy Foster argues in his writing on forestry and the northern spotted owl, big business has sometimes been effective in driving apart workers’ movements and those who would defend animals. However,



Marx's methods have been useful to a small group of biologists (such as Richard Levins and Richard Lewontin in the US and Steven Rose in the UK) in their own research including work on animals. For example, two self-proclaimed dialectical biologists and political activists, Ivette Perfecto and John Vandermeer, have extensively studied the ecology of coffee agro-ecosystems (mostly in Mexico), which they treat as dynamic, human-modified novel ecosystems. They have integrated radical understandings of biology with a normative preference for agriculture that provides a sustainable livelihood for small farmers. Marxist biologists have also noted the utility to capitalism of a reductionist approach to science that treats animals as mere objects for exploitation. If political geography is to expand its ambit to consider the role of non-humans, this raises the question of the type of political geography that we wish to bring animals into. This paper, which is based on interviews with biologists, makes the case for Marxism as one framework within political ecology that might usefully be brought into conversation with more-than-human geographies.

### **Ethics of coexistence: Multispecies justice in the context of human-elephant conflicts in Kerala, South India**

*Ursula Münster, Rachel Carson, LMU Munich, Germany*

This paper argues that especially in a period of rapid biodiversity loss and species extinction, an exclusively human-centred political ecology is highly inadequate. By presenting an ethnographic case-study of violent human-elephant encounters at the border of an important refuge for endangered charismatic species in Kerala, South India, I show how a diversity of humans and elephants have become what they are in the region's particular political-ecological circumstances and environmental history. Humans and elephants share lives in a common multispecies landscape that bears the scars of colonial teak extraction, capitalist expansion, rapid ecological change and the authoritarian and exclusionary conservation regime of India's Forest Department. Elephants are highly intelligent sentient beings who lead complex social, cultural and psychological lives. Like humans, they remember and embody the legacies of colonial and postcolonial violence: they have been poached for their ivory, captured in pits, forcefully "broken", tamed, and used as cheap forest workers to transport valuable timber. Disturbed socializations and post-traumatic stress disorder symptoms amongst their herd members are the result. My ethnography calls for a political ecology that cultivates a careful attentiveness to diverse ways of being, not only to the needs of a diversity of human subjects from different cast- and class backgrounds living at the forest's fringes, but also to a diversity of animals who equally have individual characteristics, desires, and biographies. Thereby, the paper also hopes to provide new insights for elephant conservation, moving away from a "fortress" approach and the strict separation between humans and wildlife, and instead envisioning a multispecies landscape where human-elephant coexistence might be possible.

# **Maíz, Desmadre; Social Difference, Biodiversity, and the Creolization of the Anthropocene**

*Emma Gaalaas Mullaney, Bucknell University*

This paper examines everyday practices of maize production in Mexico's Central Highlands to argue that the human activity that characterizes what we know as the Anthropocene is fundamentally a product of socioecological collaboration that relies on and reproduces unintended (and unrecognized) forms of difference. Drawing on ethnographic research with maize farming households, extension agents, and research scientists, I examine how locally-adapted, farmer-bred "criollo" (creole) varieties of maize work to constrain and enable particular practices of maize cultivation and commodification, and how they present unexpected challenges to decades, even centuries, of agricultural modernization interventions undertaken in the name of progress, development, and, most recently, adaptation to climate change. These nonhuman actors constrain and disrupt human efforts to control socioecological change, and also play a central role in building human capabilities. Feminist, queer, and postcolonial theories of interspecies are brought into conversation with indigenous and vernacular Mexican conceptions of maize. This approach allows for an analysis of the collective performance of farmers and maize as a form of refusal in neoliberal times, with the potential to illuminate new, more just and accountable agricultural possibilities.

In many ways, industrial maize production seems the epitome of neoliberal efforts to micromanage and control socioecological processes that characterize what has come to be called the Anthropocene. Because of its biological characteristics, its cultural significance, and more than a century of political economic convergences, industrial hybrid corn has been leveraged into global dominance as a processed and traded commodity. However, the dominance of agricultural modernization is constantly in the process of being undone, bastardized, and remade into something new and unsanctioned.

The genetic diversity and agronomic variation of criollos in these high-altitude volcanic valleys instigate new social and economic forms. They are the products of and resources for innovative cultivation and market practices. They are doing important political work, refusing to be fully incorporated into hegemonic ways of thinking about and growing food. If we pay close attention, they may offer openings for radical interspecies collaboration and transformative change.

### **35: Split Waters: Examining Conflicts Related to Water and Their Narration**

Convenors: Luisa Cortesi (Yale University) & K. J. Joy (Forum for Policy Dialogue on Water Conflicts)

While the contexts where water conflicts occur are extremely varied, the ways in which they are made part of the public domain, and how they are understood by the current scholarship, appear to be overly homogenized. Environmental and water-related conflicts have been studied by several disciplines, but their analysis has preferred violent conflicts (Allan 1996, Murakami 1995, Starr 1995, Peluso & Watts 2001, Bulloch and Adel 1993, Collier & Hoeffler 2005), and in general international disputes (Myles 1996, Gleick 1993, see also the extensive literature by the “environmental security” school). Similarly, their understanding has often followed categorization based on the causes of conflicts, such as scarcity, pollution, allocation, privatization, dams (Homer-Dixon 2001, Mehta 2005, Allan et al. 1986, Spronk & Flores 2007). However, these parameters are not necessarily the only avenues for critical examination.

How a conflict is narrated influences the ways in which it is understood, made public, as well as mediated and regulated. For example, the struggle over the Sardar Sarovar Project (SSP) on the river Narmada in India, commonly represented as a conflict between Government of India and the World Bank against the environmentalists, human rights activists, farmers, adivasis, and social movement led by the Narmada Bachao Andolan, has been understudied in terms of the different groups and the inner conflicts within each party. Baviskar (1995) has discussed how the activists, mainly from a middle class urban background and in conversation with the same audience, have been essentializing and selectively appropriating both the voices of the poor adivasis of the hills and of the richer farmers of the plain. Similarly, the conflict over the Hirakud Dam in Odisha has been framed as an allocation problem between agriculture and industry. However, there is no discussion about the diverging interests of the farmers of upper reaches and tail-end regions of the Hirakud command area, conflicts that not only have been raising internal equity issues, but have also been consequential in terms of changes in cropping patterns, agronomical practices, land ownership and peasantry composition (Choudhury et al. 2012).

The proposed panel seeks to examine the domain of water-related conflicts through the analysis of underexplored discursive constructions, framing patterns and narrative formats that are not neutrally representing conflicts, but are actively influencing their understanding and their consequences.

The panel and the papers would try to address the following three sets of questions:

- Is there a standard way of understanding the conflict? Who is the producer of this narrative? Are there intended recipients of a specific narration? Is there a correlation between the narration of the conflict and the interests of the different parties?
- Does a certain way of representing a conflict serve a specific purpose? Is it instrumental in legitimizing or prioritizing certain interests with regards to others? Does it hide, or even actively suppress, certain claims, and, in that case, whose priorities are affected?
- Does the way in which a conflict is narrated influence how it is understood, mediated or regulated? Are there causes, groups, and interests, inner conflicts that may have been altered by the way in which the conflict itself has been discussed? Does the framing of the conflict perform aggregative or dis-aggregative functions?

### **Taming the Cauca River: inclusions and exclusions in defining the future of wetlands in the Cauca River Valley, Colombia**

*Renata Moreno Q, Syracuse University*

Wetlands have two particularities that make them susceptible to bitter disputes of meanings in relation to their management: 1) The definition of wetlands is often broad and their limits unclear; 2) Disparate interests are represented by multiple and differently equipped stakeholders that define and use wetlands in often contradictory ways. Therefore, who defines and get access to wetlands become important questions to examine in order to identify inclusion/exclusion dynamics that link citizenship to particular discourses and practices of environmental management.

This paper analyzes how different meaning-uses of wetlands clash in a flood control project that was initiated on the Cauca River in Colombia in response to a flood that affected 18,934 families during the rainy season of 2010-2011 in the Cauca River Valley, a region in Southwest Colombia which spans an area of 22,195 km<sup>2</sup> and has 4.5 million inhabitants. This project brought together a set of governmental officials, sugar cane growers, grassroots organizations as well as international and local experts, giving rise to heated meetings in which proposals to manage the river and its wetlands were discussed.

The paper shows how conflict in this region over how to manage wetlands was expressed between two types of wetland users: 1) traditional Afro-Colombian farmers and 2) industrial sugar cane growers. This conflict was translated into competing narratives about how to cope with the flooding that is correlated to two scientific approaches: 1) high modernist large scale engineering that privileges dams, levees and dikes to tame the river for agricultural production, and 2) ecological engineering-like perspectives that privilege biological corridors, flooded areas, and wetland restoration projects that focus on adapting to the river.

The paper examines how Afro-Colombian traditional farmers and sugar cane growers produce contradictory narratives related to the conflict around flood management, the definition of wetlands and the services they provide, and the actors entitled with decisions making in relation to the river and the wetlands of the region. We describe how prevailing narratives framing conflict around river and wetland management are correlated with the interests of large agri-business sectors. We argue that these narratives serve the purpose of maintaining the status quo in the region while hiding small traditional farmers' uses and meanings around wetlands, as well as suppressing alternative solutions to cope with flooding events that benefit ecological and community interests. Finally, we also discuss the aggregative and dis-aggregative functions performed by the ways experts involved in the project frame the conflict around river and wetland management. We argue that high modernist engineering perspectives to control flooding resonates better with sugar growers while ecological perspectives produce fear and rejection from this sector and resonate better with small traditional farmers' interests.

### **The negation of change as a narrative strategy of control: The Polavaram dam in India as a grand solution to a timeless problem**

*Mieke van Hemert (VU University Amsterdam) & Jayaprakash Rao Polsani (University of Hyderabad)*

The planning of a multi-purpose dam across the Godavari river in India, the Polavaram project, has given rise to a controversy that is being played out on many planes. We offer a detailed case study of the conflict lines in the controversy around the Polavaram project and the narratives deployed by the various actors. Our analysis leads us to concentrate on the official narrative to understand its specific qualities: it promises a grand solution to a timeless problem. In spite of changing circumstances and insights, the large dam as a solution to problems of water, food and energy appears to be carved in stone, as a remnant of an old paradigm. Against the background of how the conflicts play out on the ground, we provide a tentative interpretation of the performativity of the official narrative.

The narrative, which in these conflicts stands out as being different from the multitude of perspectives offered by parties in the conflicts, is the official narrative of the authorities. It has discursive characteristics which we do not discern elsewhere. While Indian society and the environment are in flux, the official narrative around the Polavaram project has largely stayed unchanged since the project was (re)launched with the reaching of an agreement between the riparian states of the Godavari river in 1980, the Godavari Water Disputes Tribunal award.

What is the strategy behind repetition, what is its performativity? We suggest that a repetitive narrative is being used not so much in spite of ubiquitous change, but rather

because of it. A repetitive narrative screens off possible technical, societal or environmental evidence undermining the grand promises of solving a timeless problem in a very controlled, disciplined way. Would some suggestion of change hook itself onto the narrative, it would probably collapse.

### **Tocks Island and the end of the big dam era in America**

*Gina Bloodworth Salisbury University*

This paper examines how the Tocks Island Dam project (Delaware River, the US) came about, and how it fell apart after three decades of controversy, dissent, coalitions propaganda wars, legal maneuvering, multiple law suits, and chaos, and how conflicting narratives continually fought to reframe the project as either inevitable or inept. This research provides a textural understanding of how the Delaware River became the nexus of conflict between multiple and overlapping scales of water managers, large government institutions (such as the U.S. Corps of Engineers) and various alliances of stakeholders within an important transition in time and space. Uniquely situated chronologically as well as geographically, the fight over the Tocks Island Dam occurred during the tumultuous decades before and after the landmark environmental legislation of the 1970s, that includes the Endangered Species Act and the National Environmental Policy Act or NEPA. It also marked a turning point in federal water policy; the transition from the previous dam-centered era of federal water projects in America to the more eco-centric era of environmental protection produced the most radical change in national scale water management direction in the last century. And during this transformation in national policy, the fate of Tocks Island Dam and the Delaware River became entangled in, and contributed to those larger social changes.

This one fight did more to tarnish the reputation of the previously hegemonic image of Corps of Engineers than almost any other project, despite the Corps' efforts to utilize media propaganda to reframe the project to suit their agenda. A collection of pamphlets published by the Corps of Engineers was analyzed as a tool of narration, since the Corps utilized its power to create the pamphlets as a format of expressing institutional authority, and to frame the issue in ways that re-enforced the agenda of the Corps of Engineers. Similarly, media in the form of newspaper coverage became a powerful tool of agenda-setting for the growing opposition, who sought to re-frame the narrative, and expand from a media war to active protests aimed at stopping this project; this battleground of words became a fulcrum upon which public opinion changed regarding the need for this dam project.

By 1975, what had at first seemed like an unstoppable and unquestioned federal force, the Corps of Engineers, was re-cast as the Goliath, brought to its knees by a coalition of small town protesters fighting like David to slay the giant, whose water project got foisted upon them by decision-makers without names, in offices far away, who had no real connection to the lives and interests of the 'little guy' in the Delaware Valley. This episode reveals much

about the power of media and narrative framing water conflict. But it also makes clear one common theme in all water conflicts that remains poorly understood or addressed by scholars—the unpredictable element of grassroots political action that can up-end, alter, or in this case completely derail long-term resource management policies generated by very powerful government entities. Ironically, people who think they have the least amount of political power can force extraordinary scales of change, while those who seemingly control all the mechanisms of power and decision-making can be powerless to stop changing narratives or re-framing of an issue in the face of changing social circumstances.

**Struggles over authority, water rights, and meanings of Water. Gender and place-based alternatives of water management in Colca Valley, Peru.**

*Juana Vera Delgado, Gender and Water Alliance*

This paper sets out to contribute to the debate on political ecology of water. It examines three case studies on Andean communities in the Colca Valley, Peru. The paper analyses the gendered and place-based water practices that are deployed to gain water rights, authority and legitimize a sentient meaning of water -as actor- within local water management systems. Struggles to access water rights often also extend to struggles over the control of meanings attributed to place-based identity, gender, and to territory. Therefore, threats to water rights and local forms of water management are counteracted through dynamic resistance processes that importantly involve struggles over the meanings of water and place-based water governance alternatives.

### **36: Private –Equity, Public Affair: the ins and outs of process of financialisation of infrastructure in the water sector**

Convenor: Rhodante Ahlers, Independent Researcher

Processes of financialisation are becoming increasingly apparent in the development of water infrastructure, such as drink water networks, desalinization plants, hydropower dams, irrigation canals, waste water plants, etc. Possible reasons for this is that the water sector is arguing for more infrastructural development and investors see both infrastructure and water as desirable investments. This raises questions about the velocity of capital mobility in relation to the purpose and lifespan of the construction, but also of the impact on the landscape and the democratic governance of this development.

#### **Financialization of Himalayan Riverscapes – A Political Ecology of Private Hydropower Investments in Northeast India**

*Amelie Huber, Universitat Autònoma de Barcelona*

Since the turn of the millennium private capital flows have emerged as one of the major drivers behind the ongoing global hydropower boom. A growing body of research has traced these flows, their enabling factors, related policies, institutions and actors. What remains less explored is how the financialization of water- and energyscapes concretely affects micro-realities of hydropower-producing states and regions. In other words, how does it matter – in ecological, social, economic and political terms – that hydro-capital invested is private? This working paper explores this question, drawing on extensive literature and field research in India's two Eastern Himalayan states, Arunachal Pradesh and Sikkim. The region, part of the Brahmaputra basin, is one of the waterscapes that has been most quickly enveloped by India's hydropower ambitions. The region's abundance of unexploited water resources, its historic absence of economic development and a chaotic, elite-driven and ethnically fragmented political context (overshadowed by the increasing overbearingness of the Indian state) has provided fertile ground for the rapid expansion of private capital investments in hydropower infrastructure.

The paper sketches the geography and mobility of hydro-related capital flows and analyses implications for the human ecology of the Eastern Himalayan waterscape; for the development objectives of hydropower; as well as for governance, democracy and socio-political relations. Among the issues this paper addresses is the constantly shifting pace of planning and construction; the unequal distribution of different kinds of hydropower risks; the complex entanglements of development responsibilities and socio-environmental accountability between state and private actors; as well as implications for hydropower conflicts, resistance and local political dynamics. We argue that financialization of hydropower creates ecological and economic uncertainties and risks, thereby exacerbating



the vulnerability of already marginalized, vulnerable social groups. The increasingly complex canvas of actors involved in hydropower complicates state-society relations and obscures and reduces the political space to contest hydro-powered development.

**Filling the financial gap with easy money: how process of financialisation  
restructure the water sector.**

*Rhodante Ahlers and Vincent Merme (Independent Researchers)*

Mainstream global actors in the water sectors such as the World Water Council argue that the key to long term water security is to accelerate the development of water infrastructure. To do are actively seeking new financial sources, to fill what they define as a 'financial gap'. The return of large infrastructural solutions to water management is attracting non-traditional water investors such as private equity and institutional investors seeking infrastructure asset management. Recent research into how such investment is a hedging option for corporate water industry actors, or an investment vehicle for institutional investors, raises questions about ownership, control, distribution and affordability of water as well as the long run consequences for operation and maintenance. Central in this process is the blurring of the boundaries between public and private rights and responsibilities, and the socio-ecological consequences thereof. The nature and scale of financialisation overwhelms the regulatory capacity of the water sector, and is in essence a deeply undemocratic process. In this paper we explore how the water sector is reinventing itself to facilitate processes of financialisation and identify the contradictions of new directions in water related policy and water related practices in order to identify directions for social and environmental justice.

**Financialising Desalination: Rethinking the returns of big infrastructure**

*Alex Loftus, (King's College London), Hug March, (Universitat Oberta de Catalunya)*

Against the trend in the 1990s and 2000s, large-scale infrastructural projects have made a comeback within the water sector. Although sometimes framed as part of a broader sustainable transition, the return of big infrastructure is a much more complicated story in which finance has played a crucial role. In the following paper we explore this encounter between finance and water infrastructure through the case of Britain's first experiment in desalination technologies, the Thames Water Desalination Plant (TWDP). On the surface, the plant appears to be a classic example of the successes of normative industrial ecology, in which the challenges of sustainability have been met with forward-thinking green innovations. However, the TWDP is utterly dependent on a Byzantine financial model, which has shaped Thames Water's investment strategy over the last decade. This paper returns to the rather basic question of whether London ever needed a desalination plant in the first place. Deploying an urban political ecology approach, we demonstrate how the plant is simultaneously an iconic illustration of ecological modernisation and a fragile example of an

infrastructure-heavy solution to the demands of financialisation. Understanding the development of the TWDP requires a focus on the scalar interactions between flows of finance, waste, energy, and water that are woven through the hydrosocial cycle of London.

### **Infrastructure Development and the Shaping of Irrigation Realities in Indonesia:**

#### **From Means to Empower Farmers to a Tool to Transfer Rent Seeking?**

*Diana Suhardiman, International Water Management Institute, Lao PDR*

This article focuses on the government's attempt to transfer funds for irrigation system operation and maintenance, so-called 'stimulant fund', from the irrigation agency to Federation of Water User Associations in seven inter-connected irrigation systems in Kulon Progo district, Yogyakarta Province, Indonesia. It illustrates the transformation of the stimulant fund, from a policy measure to empower farmers to a tool to transfer rent-seeking practices. But most importantly, it shows how the most progressive policy reform efforts in Indonesian irrigation has backfired, partly due to lack of understanding of the complex irrigation realities and how the prevailing context of power and interests at various levels in irrigation system management shape and reshape policy reform outcomes. The article key message is that policy reform formulation cannot be done in isolation from complex irrigation realities and the struggles at the social interface. From a policy perspective, it implies the need to look beyond infrastructure-oriented irrigation development as basic foundation for irrigation policy reform if we are to improve irrigation system performance.

### **Licenced Larceny: infrastructure, financial extraction and the Global South**

*Nick Hildyard, The Corner House, UK*

No challenge to social injustice that lacks a grounded understanding of how wealth is accumulated within society, and by whom, is ever likely to make more than a marginal dent in the status quo. Much work has been done over the years by academics and activists to illuminate the broad processes of wealth extraction. As Karl Marx (2010) scrupulously documented over a century ago, wealth is extracted upwards because capitalists pay workers for only a fraction of the value they create through their labour – and snaffle the rest. Other means of extraction include rent and interest. These forms of licenced larceny – aka 'capitalism' – are now the institutionalised order in most countries around the world. But the work of accumulation is never done. A constantly watchful eye is therefore essential if new forms of financial extraction are to be blocked, short-circuited, deflected or unsettled. So when the World Bank and other well-known enablers of wealth extraction start to organise to promote greater private-sector involvement in 'infrastructure', activists' alarm bells should begin to ring. How are roads, bridges, hospitals, ports and railways being eyed up by finance? What bevels and polishes the lens through which they are viewed? How is infrastructure being transformed into 'assets' that will yield the returns now demanded by investors? Why now? What does the reconfiguration of infrastructure tell us about the

vulnerabilities of capital? The challenge is not only to understand the mechanisms through which infrastructure is being reconfigured to extract wealth: equally important is to think through how activists might best respond. What oppositional strategies genuinely unsettle elite power instead of making it stronger?

### **The political economy of finance in south africa's new renewable energy sector**

*L. Baker*

In the last three years, carbon-intensive, coal-dependent South Africa has become one of the leading destinations for renewable energy investment. Investment has gone from a few hundred million dollars in 2011 to \$5.7 billion in 2012 (UNEP/BNEF 2013:27) of which approximately \$1.5 billion for wind and \$4.2 billion for solar. This investment can be attributed to the unprecedented take off of the country's Renewable Energy Independent Power Producers' Programme (RE IPPPP), a bidding process for the procurement of privately generated, utility scale renewable energy, launched in August 2011.

This paper explores how the dynamics of international renewable energy development, finance and investment are embedding themselves within South Africa's complex social, political, economic and technological context. In doing so I analyse key tensions between RE IPPPP's potentially transformative requirements for climate change mitigation, economic development, community ownership and local manufacturing in a country with gross socio-economic inequality along racial divisions; and the programme's commercial priorities for 'bankability', risk minimisation based on short-term, profit motivated interests of finance and investment. Whether these tensions can in fact be managed over the long term is fundamental to the success of the industry and the extent to which it will result in long-term and sustainable social, economic and environmental benefits beyond the generation of renewable electricity.

In essence, the paper considers that while government is providing long-term support in the form of RE IPPPP, what is the longevity and quality of the finance and investment that this support facilitates? To what extent is this finance 'long-term, patient and committed' (Mazzucato 2013) and 'sustained, predictable and assured' (Lohmann and Hildyard 2014:92).

### **Competing visions of equity: The financialization of Nepal's hydropower frontier**

*Austin Lord, Cornell University*

This paper analyzes the increasing financialization of Nepal's long-imagined hydropower future, focusing on the recent proliferation of equity offerings that market shares in pending hydropower projects to a variety of differently implicated Nepalis, including displaced and project-affected populations. Following a wave of successful initial public offerings in the hydropower sector, 'the shareholder model' is being actively marketed as a means of rebalancing the uneven distribution of costs and benefits of hydropower development ('sustainable development') and a pragmatic method of avoiding costly disputes with

aggrieved local stakeholders by literally increasing local buy-in across the hydropower frontier.

Further, as foreign investment in infrastructure continues to vacillate in Nepal, the shareholder model is also understood in terms of energy sovereignty, as a method of ‘mobilizing indigenous capital’ toward ‘national priority projects’. Tellingly, in the district of Rasuwa, there are more ‘project-affected people’ who purchased shares in the Chilime Hydropower Company Ltd. than people who voted in the national elections of November 2013.<sup>2</sup> However, a wave of recent mobilizations initiated by different kinds of ‘project affected people’ and project laborers demonstrate that a diversity of claims to and understandings of equity exist.

Focusing on three distinct hydropower share offerings<sup>3</sup>, this paper considers a) the relationship between financialization and the crisis narratives that frame ongoing conditions of energy scarcity in Nepal; b) the ways that such financialization increasingly promotes both cost-sharing and risk-sharing, in addition to benefit-sharing, and c) the ways in which processes of financialization intended to render hydropower apolitical have also made a new ‘practice of politics’ possible (Ferguson 1994; Li 2007; Huber & Joshi 2015). This paper argues that the discursive momentum of ‘the shareholder model’ increasingly warps the process of stakeholder consultation and that that current enthusiasm for ‘hydropower shares’ obscures the broader set of political, environmental, and geophysical risks that shape the uncertain production of Nepal’s imagined hydropower future.

### **Infrastructural violence in the margins and tributaries. Theun-Hinboun Hydropower and the Political Ecology of ‘Best Practice’ Dams in Lao PDR**

*Dr. David J.H. Blake (Independent Scholar), Dr. Keith Barney*

Large swathes of Lao landscape are being rapidly transformed by a variety of large infrastructure development projects, including roads, agribusiness and industrial forestry, mining, industrial estates and dams. Arguably, it is the latter category that is contributing most significantly to rural socio-ecological change in Laos, not just as a result of dams’ unique role in bio-physical transformation, but also due to the profound socio-political processes they precipitate, both intentionally and otherwise. The nationally iconic Theun-Hinboun Hydropower Project (THHP), first commissioned in 1998 and expanded in 2012,

---

<sup>2</sup> Officially, 31,123 people purchased shares in the Chilime local offering in 2010 (Chilime Hydropower Company Ltd. Annual Report 2013) versus 23,675 people voted in the district of Rasuwa during the 2013 Constituent Assembly elections (Election Commission of Nepal 2014)

<sup>3</sup> These three share offerings are: 2010 Chilime IPO, the 2016 IPO of the Hydropower Investment Development Company Ltd. (HIDCL) in 2015, and the still-pending Upper Tamakoshi IPO (the largest hydropower project in Nepal and the largest IPO in the history of the Nepal Stock Exchange, delayed by the 2015 earthquakes).

provides for an illustrative case study of hydropower's complex social-ecological outcomes. Proponents have long argued that the THHP represents a textbook example of "sustainable development", and of successful mitigation of impacts and benefit-sharing with affected communities, "planned and implemented in accordance with international good practice". Drawing upon both authors' in-depth empirical field research in the Hinboun Valley over the last 10-15 years, this paper examines project-linked processes of local socio-ecological change, and analyses how these transformations have been discursively represented by various external actors. We argue that while the project could be considered successful in achieving certain economic goals defined by the government and private-sector investors, evidence of social and environmental sustainability is far from established, raising fundamental questions about the prospects for the majority of other dam projects in the region, with weaker standards and oversight. In this paper we consider whether— and to what extent—hydropower in Laos and the Mekong region could be considered as a form of 'infrastructural violence.' We also point to the importance of medium to long-term, place-based research for understanding how hydropower development produces social marginalisation through everyday, mundane, but persistent and cumulative losses of community resources, property and livelihoods.

### **37: Socialism, Marxism and the financialization of nature**

Convenor: Rosaleen Duffy, SOAS

#### **Value, struggle, and the production of nature.**

*Luis Andueza, King's College London*

Within the Marxist tradition, Neil Smith's thesis on the 'production of nature' made a path-breaking contribution towards the development of a distinctly non-dualist analysis of humanity's relation to nature; critically, it placed the Marxian category of value at the centre of the capitalism's socio-ecological constitution. It, however, falls short on fully conceptualizing the diverse and conflictual texture of capital's socio-ecological reproduction, and its relation to non-capitalist forms of practice and environment-making. This paper builds on and aims to move beyond Smith's thesis through a dialogue with Open Marxist/post-workerist traditions and ethnographical theories of value, in order to make explicit the antagonistic nature of Marx's categories and its environment-making implications, and to explore ways of approaching the multiple environment-making practices not directly reducible to the accumulation process, but nevertheless fundamental part of its historical development and the production of contested landscapes. This paper further argues that a focus on value might prove useful to avoid the potential pitfalls risked by current emphases on 'ontology' within political ecology, and provide a basis for a political ecology rooted in value practices and struggles.

#### **Towards an eco-socialist climate policy: Decarbonisation dialectics within global and local climate activist movements**

*Patrick Bond*

As the world considers routes towards economic decarbonisation this century, Is there an eco-socialist potential rising in the world activist movement against climate change? Following both the 2015 G7 summit and Paris climate conference, statements by the International Non-Governmental Organisations (INGOs) which took the bulk of the world's attention – including from Avaaz and Greenpeace – left the impression that a viable deal was agreed upon, and that irrevocable steps toward economic decarbonisation were taken so as to potentially save the planet from catastrophic climate change. In contrast, one INGO, Friends of the Earth International, as well as most of what are considered 'Climate Justice' (CJ) movement components, condemned these two crucial instances of global governance. However, the CJ opposition made no difference whatsoever, because for world climate policy, the die has now been cast, leaving intact several dangerous features of the Paris strategy: no legally-binding responsibilities and no accountability mechanisms; inadequate stated aspirations for lowering global temperatures; no liabilities for past greenhouse gas emissions; and renewed opportunities to game the emissions-reduction system through

state-subsidised carbon trading and offsets, now moving from the European Union and North America to the emerging markets. The CJ answer to this top-down INGO-endorsed policy regime – one overwhelmingly favourable to the United States, from where the strategy emanated – appears to be two-fold: an intensification of bottom-up strategies that aim to weaken GHG-emitting state and corporate targets through both direct action (disruptions) and financial divestment. Simultaneously, increasing attention is being drawn to the class, race, gender, national and North-South dimensions of climate injustices. But given the Paris deal, the CJ strategy to undo the damage will unfold at local and national scales – and surprisingly perhaps, to that end, en route to economic decarbonisation, there may be merit to CJers utilising one of the framing narratives of ecological modernisation: natural capital accounting. Yet for the foreseeable future, the global balance of forces appears extremely adverse – especially with the decline of the Latin American centre-left regimes – and forceful change at that international scale will require a decisive shift of orientation not just by national state negotiators, but also by INGOs towards the CJ approach. This is already beginning to become evident in the ways Greenpeace and [350.org](https://350.org) have taken up direct action and divestment strategies, respectively, during this rapidly-closing window to address climate change and related eco-system breakdowns effectively and fairly. But the basic dialect within the climate activist narrative, between ecological modernisation and climate justice, requires a resolution that reaches far further than either have envisaged: eco-socialism as the necessary alternative socio-economic model, to save the planet from catastrophic climate change, and with it, so many of its resident species.

### **The financialisation of power: speculation, rent or dark pool trading in nature based assets?**

*Sarah Bracking*

Much has been written about the financialisation of the global political economy, particularly since 2008, and the consequences of processes of financialisation on the further entraining and entrapment of nature-based processes, things and non-human species. However, as Christophers recently argued, much of this has taken the form of a consequentialist critique, rather than an empirically based examination of changes within the domain of finance itself. This paper will pick up this challenge and speak to changes that have taken place in finance, trading, the organisation and nature of derivatives, and how these relate to the limits of financialisation processes in place. It shows an increase in dark pool trading, a move to organisational forms that look more like rent than speculation, and a denial of the Marxist notion of ever increasing frequency in trading circuits. It argues that the move to global scale that financialisation represents removes much of the viability of derivative income streams for national elites from their sovereign nature-based assets - representing a distinct limit to further financialisation - unless their sources of powerholding are also entrained through gatekeeper functions which divert part of the profits to their offshore accounts.

## **The Notav Movement : toward a post-capitalist ecology?**

*Anahita Grisoni, postdoc fellow in the UMR5600, Environnement, Ville, Société*

Since 1989, the Italian Notav movement, located in the Val di Susa (Piemonte) is opposed to the construction of a passing through a 57 km long tunnel railway line between Torino and Lyon. The corridor has been designed within the framework of the European Transportation Network, in the name of sustainability. But the Notav movement has never been only a local mobilization, such as so-called NIMBY movements; from its very beginning, it has been developed around a European concern for the Alp mountains future, and represents nowadays the major social conflict on the Italian public sphere, a conflict that is defined from both sides as violent and illegal. As much as the railway line defenders, the Notav social stakeholders move forward the idea of an ecological position.

Through a two years field qualitative fieldwork, based on semi-directive interviews and a focus group I tried to reconstruct the different, and sometimes divergent, elements of the ecological dimension of the Notav movement. Highlighting the conflictive aspect that emerges from the “oppositional social space” (Negt, 1986) created by the Notav movement in Italy and, indirectly, in other European countries, my purpose, in this paper, is to define the outlines of the conception of ecology, as it is conceived by this Northern Italian movement. Without clearly claiming notions as “degrowth” or “counter-culture”, the Notav social stakeholders contest the institutional definition of sustainability, and promote the generic idea of “commons”



### **38: New Technologies for Conservation: What are the social and ethical implications?**

Convenors: Robert Fletcher (Wageningen University) & Rosaleen Duffy (SOAS)

In recent years conservation practice has been characterised by the rapid uptake of new technologies for data gathering, monitoring, surveillance and management. New technologies include mobile phones, drones, computer games, live video or audio streaming from remote locations, use of forensics to tackle poaching, gathering and sharing intelligence for anti-trafficking and the use of a very wide range of apps. Many of these technologies and approaches were the subject of a comprehensive special issue of *Ambio* (2015) on Digital Conservation. The special issue identified the need to develop our understandings of the social, political, economic and ethical dimensions of the practice of using these new technologies (Arts, van der Wal and Adams, 2015; also see Humle et al, 2014). A wide range of environmental conservation actors, including NGOs, international institutions, state agencies, and private foundations, have grown increasingly enthusiastic about the potential for new technologies to contribute to conservation goals in a variety of places worldwide.

Yet the ethical and social implications of their use have been largely ignored by the conservation community thus far (e.g. Pimm et al., 2015). For example, the use of drones raises a range of issues around possible invasions of privacy, the challenges associated with data sharing with agencies outside the conservation sector, and gaining the consent of communities in the flight paths (Sandbrook, 2015). Consideration of the implications of such technologies, including their potential to produce or deepen conflict among target communities, has lagged behind their implementation. Very few organisations have produced coherent guidelines or regulations concerning their use. This panel therefore aims to bring together researchers and practitioners to discuss the ethical and practical implications of introducing new technologies into conservation policy and practice.

#### **“Left photo, right bomb” – technologies, warfare and the surveillance of nature**

*James L. Merron (PhD candidate, University of Basel) & Luregn Lenggenhager (PhD candidate, University of Zurich)*

During the course of the Namibian Border War (1970s), the South African Defence Force intensified its cartographic and ecological research of the northern territories of Namibia. These scientific efforts were accomplished through the use of military technologies. The South African Air Force used planes not only to bomb the enemy's camps but also to produce aerial photographs to be rendered as data for mapping the region's ecological features. They were also in charge of counting wildlife and gathering information on the

distribution of plants. A former pilot of the SAAF put this in a nutshell when he said: "left photo, right bomb" while pointing at the control lever in the cockpit of a fighter jet.

The assemblage of technological artefacts and knowledge production of this kind provided the spatial and geographic basis for the establishment of national parks in Southern Africa. Within present conditions the entanglements of (military) intelligence and nature conservation are evident in places maintained as trans-frontier conservation areas or "Peace Parks", brought into being through a shared infrastructure whose constitution blurs the distinction between what might be identified as a high-tech weapon, a scientific instrument for the protection and research of wildlife or a surveillance technology to define and control poachers and other trespassers (drones, satellites, noise traps, etc.).

Our paper takes this ecological and military complex as a starting point to reflect on the discursive, epistemological and technological interrelations of knowledge production, wildlife protection, cartography and warfare in late 20<sup>th</sup> and 21<sup>st</sup> century in northern Namibia. We want to trace these developments, convergences and distinctions in order to elicit theoretical and methodological issues that are relevant to the topic under investigation: When ecological and military technologies and practices meet, what do they become? What kinds of knowledges are possible when they are constituted by this relationship? And more reflexively, what is the nature of our own knowledge, data and conceptual tools through which to represent this state of affairs?

### **Environmental Conflict and Collective Digital Activism on the Darknet**

*Brett Matulis*

By now it is well accepted that digital communication technologies can play a central role in facilitating political activism. And, with the conception of nature 2.0, it is clear that social media and other means of virtual discourse are factors in re-shaping conservation and environmental governance. As such, we are witnessing the opening of a new arena in conservation politics and environmental conflict. The "surface web" is now ubiquitous in environmental campaigning and an essential means of organizing political action. Critiques of new-media-based social movements, however, have suggested that this form of digital activism is too deeply embedded in the ideologies of neoliberalism – and online identity is too deeply exploited under cognitive capitalism – to foster truly radical politics. Some have even suggested that social media serves to *produce* neoliberal subjectivities through an individualist form of networked activism. Increasingly (and partly in response), however, digital activists are taking to the so-called "darknet" (an underworld of technologically untraceable communication) to engage in political activism and coordinate "digital direct actions". Anonymity within these new virtual spaces is ushering in a form of *collective* digital politics without identity, rather than extending fractured individualism rooted in marketing and branding the "Self". This paper explores anonymous environmental activism

coordinated on the darknet, and seeks conceptual insights to a growing arena of environmental politics in late capitalism.

### **New technological interventions in conservation conflicts: Countering emotions and contesting knowledge**

*Audrey Verma (University of Aberdeen), René van der Wal (University of Aberdeen), Anke Fischer (The James Hutton Institute)*

New technologies have increasingly been used within environmental conservation conflict situations as a means of producing conclusive evidence. In this paper, we examined the use of new technologies to survey and surveil the Fal estuary in Cornwall, UK. Due to heavy use of these waters and its designation as a special area of conservation, there have been several disputes involving multiple actors. These disputes have coalesced around key protected sub-features such as the rare maerl (coralline algae) beds in the estuary. A comparison of two recent cases, over scallop dredging practices, and over docks development plans, showed that technological interventions were used to produce technical evidence in the marine environment, and to generate knowledge that was intended to inform decision-making. Rather than being plainly technical however, these processes were entrenched in the political. In the first case of scallop dredging, the modern imaging devices we examined were instrumental in stimulating political action. In the second dispute over planned docks development, diverse interviewees with hybrid identities shared the belief in the need for data and evidence considered to be 'rational', as opposed to 'emotive' arguments. In this sense, the usual expressions of opposition between local and scientific knowledge did not play out. This agreement did not however result in wider consensus as narratives revealed little convergence over who or what was 'scientific' rather than 'emotional'. Within this context, some actors perceived the use of technological devices as a step in the direction of desired scientific rationality. Others contested it as a shift in baseline in the battle for credibility and authority, thus calling into question the social efficacy of technological interventions in managing conservation conflicts.

### **Terran Terror: the Militarization of Forest Conservation in Northern Guatemala**

*Micha Rahder, Louisiana State University*

Environmental conservation is undergoing a worldwide shift towards militarization: armed guards patrol park borders, drones monitor remote landscapes, and wild places are reframed through the lens of eco-security. This paper focuses on the militarization of forest conservation in Northern Guatemala, where the living memory of a brutal 36-year long civil war haunts new mobilizations of the military and surveillance technologies in the name of forest protection. Drawing on ethnographic fieldwork among remote sensing technicians, GIS mappers, and conservationists working in Guatemala's Maya Biosphere Reserve, this paper focuses on the intersections of violence and terror with technoscientific knowledge,

forest ecologies, and responsibility towards both human and non-human lives. Northern Guatemala's forests have long been the milieu for violence and terror, and for the deployment of military personnel and technologies. But so too are they subjected to violence through the catastrophic loss of lively ecologies: forests are converted to narco-ranches, oil palm plantations, and resource frontiers. Recent work on multispecies ethnography brings lively Terra – the more than human world – into the same frame as all-too-human destruction and military logics. Terror, including multispecies Terran terror, thrives on epistemic murk, undermining any possibility of certainty. But the urgency of loss drives conservationists to deep desires for certainty and action. In this way, conservationists end up participating in the same violent dynamics that drive the deforestation they are so desperate to stop: the ideology of apolitical objectivity, the belief in moral use of force by the state, and the false clarity of a nature/culture divide.

**Bridging the technological divide - opportunities and challenges for community-based forest mapping and monitoring**

*Maud Salber (Rainforest Foundation – UK)*

Most often, the lands earmarked for conservation in the Congo Basin, far from being pristine wilderness, are human landscapes. Yet the customary tenure, rights and livelihoods of the millions of people living in these areas are often poorly documented and therefore neglected. Geospatial technologies can bridge this gap and greatly assist in making this information much more accessible to decision-makers and organisations. Through the MappingForRights initiative, the Rainforest Foundation UK (RFUK) and its partners have been enabling local communities and indigenous peoples to map their lands and livelihood activities and make this data available online – thereby supporting them to influence policy processes related to nature conservation (as well as community forests, REDD and land-use planning). Further, RFUK's ForestLink system allows communities to send near instantaneous alerts of illegal logging, and potentially of human rights abuses carried out in and around protected areas, even in remote forest areas lacking telecommunications infrastructure. Cheap and easy to use and scale up, these tools hold great potential to support conservation actors in embracing a more inclusive, just and sustainable form of conservation. But there are also a number of challenges. Greater online access to often sensitive data can put communities at risk, and a careful balance must be stricken between the need to support advocacy efforts and protecting their collective interests.

## 39: Fences and Fencing: Political Ecology and Development

Convenor: Paul Hebinck, Wageningen University

The entry point for the panel is that fences or any other form of territorial demarcation like borders transform the landscape. The panel brings papers together that discuss the meanings and dynamics that fencing or borders bring to the landscape. Fencing is treated here analytically as a process of socio-material transformation; as an aspect of socio-economic, political, legal and environmental change which will or may not necessarily follow one single pattern. Fencing creates a range of different patterns which cannot easily be understood when interpreted from the perspective that there is only single and overarching logic that leads to fencing. The fence, or the (imaginary) border or boundary, is the socio-material object of study. The fence is a piece of wire that encloses and marks fields, fixes territory in many ways, etc. It serves varying purposes: excluding or including people, including or excluding animals, preventing the transmission of animal diseases, demarcation of territory, (re)claiming territory, keeping refugees out and so on.

There are at least two analytical dimensions at play. First: fencing is a purposeful practice of erecting fences. Fencing is enacted by social actors that aim to reassemble the landscape into something 'new' or different. What is 'new', or what will happen next, and different from previous dispensations, and what kind of agency is organised to erect or contest a fence or claim a territory and how does this agency manifest, what are the opinions and experiences of those involved, is subject to empirical investigations.

### **Fencing and the transformation of Namibia's communal lands**

*Paul Hebinck (WUR/SDC) and Willem Odendaal (LAC/Windhoek)*

The aim of this paper is to debate the meaning of fencing. In order to achieve this requires a conceptual rethinking of the fencing as a practice and as a piece of technology (e.g. wire). The paper reviews how fencing is conceptualised in the literature and a main question to address is to what extent fencing can be simply understood as part of land grabbing that recently has attracted a lot of attention from academics and practitioners. Or is it more appropriate to perceive fencing as the socio-material indicator of 'structural' transformations of the commons in Namibia, a process that is stretching over 100 or more years. Is fencing an example of land grabbing or is land grabbing a specific but recent dimension of the gradual transformation of the nature of the commons? Building on more broader perspectives of social change and development one may argue that conceptualising communal areas as arenas of struggle is an important methodological step to take. Fencing is not treated as an event or series of events taking place disconnected or isolated from broader process of historical and contemporary socio-political and environmental transformation of the communal lands in Namibia. Various and recently documented cases

will be used the strengthen and develop key arguments about the transformation of the commons in Namibia.

**“Learning to play with strangers”: territoriality and indigenous politics in the Colombian Amazon**

*Gerard Verschoor (WUR/SDC)*

The presentation describes and analyses efforts by an indigenous Tikuna community in the Colombian Amazon to reclaim their ancestral territory, which was gazetted as a National Park in 1975, and implies negotiations about some form of co-management with National Park authorities and the Ministry of the Interior. The efforts play out in a context in which the State and a number of international organizations actively seek to garner control over the region's immense natural resources. This they do on the basis of a deeply-seated belief that Amazonia is a *Terra Nullius* and thus a playing ground for mavericks of all sorts – be they conservationists, extractive industries, or CO<sub>2</sub> merchants. At stake in the negotiations is an alternative reading of “natural resources” and “territory”. For the Tikuna, all entities (including persons) are humans and have agency, values, appetites, and so on; hence, relations between entities are basically *social* (and not utility) relations governed by reciprocity and subject of care and diplomacy. Likewise, the notion of “territory” does not signal a geographical space in which someone exercises sovereignty, but rather a *body* continuously built by relations between entities living in different “layers” or “worlds” – a body that provides “abundance” when relations are reciprocal and built with care, but that will inevitably become “ill” (e.g. climate change, war, crime, disease) when relations go awry. The presentation thus tags a series of ontological disjunctures involving the *in situ* construction of a cosmopolitics (Stengers 2010) that resists the tendency to reduce *politics* as the domain of a select club of humans but by opening up the number of entities that may participate at the negotiation table. More broadly, the case points to the need to exercise some form of conceptual politesse- what Donna Haraway calls (2008) “learning to play with strangers” - if one is to avoid a “dialogue of the deaf” between interlocutors whose ontologies continuously interact, interfere, or mix with one another.

**Fencing predators: Hunters and prey on South African game farms**

*Marja Spierenburg (VU) and Harry Wels (VU)*

The wildlife industry in South Africa is thriving, with increasing numbers of game farms. Large parts of the South African countryside are enclosed with fences. Fences have always been strategically important in wildlife production and conservation, both to protect wildlife, but also to keep local people out. The high – often electrified – fences allow game farmers to claim ownership of wildlife. Farm dwellers – farm labourers and (former) tenants who consider the farms as their home – are relocated to recreate the idea of ‘pristine wilderness’. These relocations negatively affect their ability to claim land on the farms

through the component of the South African land reform programme aimed at securing farm dwellers' security of tenure. Contrary to claims by wildlife industry proponents, employment opportunities on game farms – especially on hunting farms – decrease, also due to the amalgamation of farms to create viable wildlife areas. As a result, large numbers of farm dwellers end up being pushed beyond the boundaries of the fences into townships and informal settlements. The fences hence serve to claim wildlife and land. The paper will discuss the ways in which fences are used to keep certain groups of people out – especially those 'preying on land' through land reform – and to claim and commercially exploit wildlife. The fences keep predators in, but also hide how the status of these precious animals changes during the course of their lifetime and the different ways in which they are commodified.

### **The camp and the humanitarian border**

*Bram Jansen (WUR/SDC)*

Protracted refugee camps are increasingly recognised as sites of elaborate humanitarian government, rather than temporary, dystopic waiting places for the assistance of people fleeing war and insecurity. This shifting perspective from 'assistance to refugees' to 'governance of space' challenges the conceptual understanding of camps as sites of exclusion and seclusion. Instead, it opens up a socio-economic perspective on camps that start out as responses to emergency and crises, but develop into increasingly sophisticated humanitarian landscapes with emerging economies and diverse patterns of development and mobility. In a recent article, William Walters discusses 'the birth of the humanitarian border' where spaces of humanitarian government merge with physical boundaries. The US-Mexico border, the Morocco-Spanish (Mellila) border, the 'Jungle' of Calais, and different places around the larger Mediterranean, are sites of a growing irregular migration phenomenon that is mitigated by fences, physical barriers and surveillance technology on the one hand, and by humanitarian care on the other. These ambiguous spaces are organised around the logic of containment and the logic of care at the same time. They are fluid spaces, comprised of a variety of protection measures, maintained and organised by a combination of UN, NGO, state, military, private and corporate actors, and presenting both restraints and opportunities. This paper addresses the development of 'the camp' in relation to this notion of the humanitarian border, and explores how this relates to processes of mobility and (forced)migration in the contemporary Syrian refugee context.

### **Fencing and Practices of Territorialisation in Zimbabwe's Fast Track Land Reform**

*Patience Mutopo (Chinoyi University, Zimbabwe)*

Situating the analysis of rural livelihoods and land based outcomes in Zimbabwe falls within the ambit of understanding the new agrarian structure. The fast track land reform led to an alteration of the agrarian structure in social, physical and political spaces. In this article I examine the concept of fencing from the social, physical and legal domains. This work is

based on an iterative ethnographic research that has been on going in Mwenezi district since 20009. It reveals how the black newly resettled farmers and the remaining white commercial farmers share territories in the form of physical space and boundaries. The vantage point from a theoretical framing is that fencing as concept goes beyond boundary delineation and has several meanings embedded within the socio cultural specificities of a community or a people. When people erect fences in a farming environment the meanings should not be taken at face value but rather there is need to reflect on the deeper context of their perceptions and their decisions to erect fences. I conclude by suggesting the need to revisit land policies in changing histo-geographical context of land reforms in Zimbabwe and the appreciation of territoriality and space zones.

### **Fragmenting, fencing, and pushing Huichols out**

*Oscar Reyna (WUR/SDC)*

Recent Mexican land reforms on the "ejido" have been oriented to fragment the historical common property. External agents like transnational agro industries, toxic waste management and large scale mining companies have taken advantage of such policies to penetrate into local lands and their social dynamics in order to make profit out of different kinds of extraction with cultural and environmental consequences. This paper address the case of Wirikuta sacred natural site in northern Mexico where such reforms and projects have tried to push Huichol ethnic group aside from their ceremonial sites in order to extract precious metals. In the struggle, it is possible to clearly identify different conceptions on place and strategies of territorialization. As part of counter development strategies, local actors have mobilized networks of different natures connecting the local, the global and inter actoral relationships leading to a successful re-appropriation of the place at stake.

### **Communal land as an arena for social struggle: 'Illegal' fences in the Nꞑa Jaqna conservancy**

*Christa van der Wulp (WUR)*

During their search for 'underutilized' land, an increasing amount of livestock farmers from different parts of Namibia have settled in the Nꞑa Jaqna conservancy. In most cases, these livestock farmers erect fences which they regard as a necessary measure for productive livestock farming. As a result, the communal lands have become *de facto* privatized. The local community, consisting mostly of different San groups, resists the presence of fences because it interferes with their livelihood practices and restricts the movement of wildlife. The transformation of the commons embodies the competing discourses and land claims over fences. In this presentation we will explore the concept of illegal fences as the material expression of two competing development discourses: livestock farming and conservation based on the CBNRM model. Overlapping rights and claims leads to a complex land tenure system in Namibia with various institutions competing for authority and access to land. The



Traditional Authorities and the Communal Land Boards are main institutions that deal with land allocation. While current land legislation specifically forbids fencing in communal areas, these institutions are not able to deal with the everyday realities in N#a Jaqna. This leads to 'room for manoeuvre' which certain individuals can exploit for their own benefit. As a result a new actor, the conservancy, is attempting to fill the institutional void in land allocation and prevent illegal fences. Ultimately, access to land is not determined by land legislation but by being able to perceive and exploit the weaknesses within the different institutions.

### **Negotiating sovereignty on the Cambodia-Vietnam border**

*Sango Mahanty, Australian National University*

*"A letter signed by [Interior Minister] Mr. Kheng... said that the Interior Ministry has grown concerned about Cambodian citizens renting their land to foreigners along the border and later losing access to it... In order "to protect territorial integrity and sovereignty"...the governors of the border provinces must collect information about such practices in their jurisdictions and report to the ministry by next month<sup>4</sup>."*

The article quoted above was one amongst many covering a heated national debate on cross-border land rentals along the Cambodia-Vietnam border, which peaked in May – October 2015. During this time, the lead opposition Party led protest rallies to border districts that hosted Vietnamese land rentals, using the issue to question the government's border maps and 'sovereignty credentials'. Virulent anti-Vietnamese sentiment flared in Cambodian social media, and some local farmers even alleged that Vietnamese border personnel had poisoned their crops. My paper will explore this conflict and its connections with land and sovereignty. By their nature, land rentals involve changes to the control and use of land, with implications not only for immediate actors, but also for state territorial interests. Questions of sovereignty – which could broadly be viewed as the capacity of a people to control resources and the means of social reproduction (Wolford et al. 2013) – are often central. Sassen (2013: 22) suggests that such situations, involving the 'overriding of borders,' may yield important insights on the nature of and changes to state territorial authority. For example, various forms of international intervention may create 'new types of formal and informal jurisdictions, or structural holes, deep inside the tissue of national sovereign territory' (Sassen 2013: 23). Evidence along these lines is mounting for the Economic Land Concessions that are becoming ubiquitous in Cambodia's rural landscapes. The sovereignty dimensions of smaller-scale land transactions are less well understood, but the associated meanings and practices (Hansen and Steppatut 2006) may cast their ripples wide; for example land rentals now figure in national political contests as well as regional

---

<sup>4</sup> Kuch Naren, "Interior Minister Says Borderland Leases a Sovereign Concern," *Cambodia Daily*, October 21, 2015

geopolitics. Based on recent empirical data and media analysis, this paper will examine how cross-border land rentals figure in scalar negotiations of sovereignty, as diverse actors attempt to exert their contested interests and control over resources and people. It will consider the implications for state territoriality in a region historically wracked by conflict.

### **Struggles over the meaning of territory in the Pacific coast of Colombia and the creation of a protected area in the Gulf of Tribugá**

*Paula Satizábal, The University of Melbourne*

The Pacific region of Colombia as many rural places in developing countries has been part of a wild frontier myth. This myth has constructed a narrative of rural places as vast extensions of empty forests, rivers, coasts, and oceans that are occupied by people living in poor and primitive conditions. In the case of the Pacific Coast of Colombia this narrative primarily refers to Afro-Colombian and indigenous peoples, where communities' access and rights over their traditional territories (terrestrial and marine) are often being disputed by processes of capital accumulation. I will explore why Afro-Colombian communities in the Northern Pacific coast are actively supporting the creation of marine protected areas using the Gulf of Tribugá as a case study. Afro-Colombian communities in this region have been part of networks in biodiversity conservation and sustainability that were key for the creation of their cultural and collective territorial rights law [Ley 70] during the 1990s. I argue that the creation of a protected area in the Gulf of Tribugá in 2014 has not been isolated from this process; it is one of the outcomes from the ongoing struggles to deconstruct the wild frontier myth and reclaim the coastal sea as part of their territories. First, I will explore confronting views of the meaning of territory in the Pacific in the context of a wild frontier myth. Second, I will analyse conflicts between local communities and industrial fisheries. Third, I will discuss the creation of a protected area in the Gulf of Tribugá, and analyse how the state has been caught between prioritising economic growth and meeting global conservation and biodiversity goals. By declaring a new protected area, communities are renegotiating control of marine territories. I argue for the integration marine territories into the territorial rights of Afro-Colombian communities in the Pacific coast.

## **40: The scalar politics of water for food and energy developmentalism 2.0**

Convenors: Jeroen Warner and Jaime Hogesteger van Dijk, Wageningen University

Despite a widely embraced environmental turn and strident critique of megastructures as laid down in the 2000 World Commission on Dams, large infrastructure construction has taken been reignited like there's no tomorrow. The renewed calls for increased global food demand, the growing numbers in foreign direct investment in the agro-food sector (both bulk and fresh 'luxury' foods) of many countries, the switch to non-fossil energy, and the expectation of increasing climatic insecurities underlie this trend.

(Trans)national private companies have gained a strong power position as drivers of many of these developments and are often backed by state's investment policies that although hinging on infrastructural developmentalist interventionism have by and large facilitated and embraced free-market economics. We place this development in the context of the changing structure of global agricultural (food) trade, which especially since the 2007/8 price hike has seen a wave of direct investment and financialisation. Through this process natures, actors, interests and related discourses are mobilized and transformed at different scales. The construction of large works and the transformation of 'empty/unproductive' lands materially fixes these multi-scalar relations. In the process new socio-natures and related governance arrangements are re-created, contested and transformed through scalar politics; that is the pursuit of political projects through the use and transformation of new and existing scales of governance.

This panel proposes to explore these issues from different perspectives and in divergent contexts with the aim of better understanding how different actors articulate at multiple scales to determine how, where and by whom water is accessed and used. Based on these insights with the proposed panel we seek to explore what implications this has for the way we understand and conceptualize the politics of scale in water governance.

### **Introduction: Hydraulic mission creep: the return of the megastructure**

*Jeroen Warner and Jaime Hogesteger van Dijk, Wageningen University*

While Integrated Water Resources Management and River Basin Management has held sway as the dominant paradigm in water management since the late 1990s, we argue the 'hydraulic mission' never really went away. Dams and irrigation systems are being built like there's no tomorrow. Development is considered not a good enough reason anymore to build a dam. The war on drugs, on terrorism, on drought and on climate change are now successfully enlisted to legitimize building infrastructure around the world. The rise of the BRICS and South-South cooperation provides nontraditional sources of funding, making them less exposed to Western conditionality's.

The examples of Mexico, Brazil and Ethiopia illustrate this. The resulting governance picture highlights the scale disconnect between the still widely embraced policy discourse of IWRM/RBM and the practices of 'hydraulic mission 2.0'; questioning what value international calls for 'good water governance' have in the midst of a broader trans-national political projects.

### **Is water on the agribusiness agenda? Politics of scale and water governance in upper Xingu Basin, Brazil**

*Vanessa Empinotti, Assistant Professor, UFABC, Brazil*

Studies on environmental governance usually analyze the decision-making processes dynamics taking place among state agencies and other civil society actors. In the context of water, such studies have been mainly focusing on RBM cases in which governance practices would take place in formal participatory institutions, highlighting the role of the state as a key stakeholder.

However, in regions where the state's presence is only fledgling, how would water governance take place? This is the case in the Amazon region, which poses a significant challenge over the Brazilian Water Management System. The extension, population dispersion, and few economic activities of existing watersheds in this region have challenged the state from putting in place water management institutions to promote participatory and decentralized decision-making processes as defined by the Brazilian Water Law (Law 9433). At the same time, the energy and agricultural sectors have expanded their activities in response to the abundant water availability in place. In order to investigate the ways in which water issues have been discussed and negotiated in the region, this paper analyzes the case of the Upper Xingu River Basin and how water governance is taking place in this context.

So, who are the groups pushing to put water issues on the agenda in the region? How are their strategies influencing water access?

The empirical study was conducted in Canarana at the Upper Xingu river basin, in the state of Mato Grosso, the main soybean producer region in the country. I start off the discussion unveiling how water issues are defined around land use, the main players in the region, and the water governance practices in place. I then discuss the reasons for such arrangements and how they create a different politics of scale dynamics. Finally, I discuss how the issue of water has been indirectly co-constructed by programs and partnerships that focus primarily on forestry recovery, with environmental NGOs, farmers, natives and local state authorities as the main players.

## **The scalar politics of groundwater governance in Guanajuato, Mexico**

*Jaime Hoogesteger, Water Resources Management Group, Wageningen University*

The imported vegetables consumed in Europe and North America have important consequences for how water is used and distributed in the 'South'. In most regions of the world the production of vegetables depends on large amounts of water. Divergent scalar politics have facilitated the increased production of vegetables for the agro-export sector leading to new forms of water use and control. The export of fruits and vegetables is promoted globally by international free-trade agreements and permissive as well as enabling market oriented neo-liberally inspired government policies. These articulate at different scales through various actors and lead to specific local processes that determine groundwater access and use. This contribution will explore these relations and actors and how they articulate at different scales resulting in the rise of the agro-export sector and how and by whom groundwater is being used.

## **Scalar strategies as politics of the governed: the Baba mega hydraulic project in Ecuador**

*Juan Pablo Hidalgo (Centre for Latin American Research and Documentation, University of Amsterdam) & Rutgerd Boelens, (Wageningen University)*

Mega hydraulic projects can be studied as particular expressions of capitalist socationaturalization and contestation. As hydro-political schemes, these developmentalist constructs embrace and (re)produce socio-environmental injustices. By strategically mobilizing power techniques they deeply reconfigure territories, linking society and nature in particular chains and networks. They entwine diverse societal actors, state structures, artefacts, capitalist institutions, mechanisms, techniques and desires, with discourses of progress and modernity to materialize waterscapes that unevenly allocate and distribute benefits and burdens.

Such interventions commonly constitute technocratic projects of a no-way-back nature that exclude local people from political participation while misrecognizing their cultural and normative mainstays. This triggers contestations that are frequently ephemeral struggles, unable to change the status quo. However, some battles succeed (or partly accomplish their interests), influencing or stopping mega dam design and implementation processes. What does make the difference in these cases? Are these 'success stories' at all or just local imaginaries of temporary victory and pride?

The open resistance and collective contestation around the Baba hydraulic megaproject, in and around the town of Patricia Pilar during the early 2000s in the Ecuadorian coastal region, represents an illustrative case. Collective contestation efforts effectively influenced the designs of hydraulic infrastructure. In such a conflictive hydro-social case, approaching the

strategies of the governed as politics of scale provides an interesting entrance to better understand how different actors articulate at multiple scales to determine their future living. This article intends to unpack the imaginaries and actions of the State - construction company alliance of the Baba project, and the dynamic counter-reactions by the affected communities' multi-scalar hydro-social network. It demonstrates how this resulted in reshaping techno-political design, avoided the flooding of Patricia Pilar.

### **Struggles for water, knowledge and environmental democratization in extractive frontiers of Colombia**

*Cecilia Roa-García*

On the 15th of February 2013, more than 2,000 people gathered in the coliseum of the eastern foothills town of Acacías, Colombia, for a public audience that lasted 10 hours. Representatives of the peasant community, the majority of the 220 people who spoke, expressed their concerns about the impact that the construction of oil exploration wells would have on the water sources on which their livelihoods depend. They had previously gathered evidence on the environmental impacts that oil exploration and extraction had produced in the region and showed the vulnerability of the areas of aquifer recharge that represented more than 70% of the project area, documented in a watershed planning exercise done by a joint commission of six environmental authorities. Four months later the environmental licensing agency presiding the audience denied the license.

This paper explores eight cases of such activation of democratic mechanisms in the eastern plains of Colombia, some of them however, resolved with a rejection to communities' demand to participate. The sporadic activation of these mechanisms reveals their ambiguity between emancipation and obstruction in the legal context of Colombia. The mechanisms suggest: a synergy with more permanent water governance mechanisms oriented towards socio-ecological goals; an increasingly erratic behavior of the national government that at the same time defends economic state imperatives, and protects the right of territorial self-determination; and the risk of the extractive frontiers of becoming new scenarios of violence, if the state fails to embrace the outcomes of environmental democratization.

## **41: Resistance Café**

Convenors: Danielle Hirsch (Both Ends), Elisabet Rasch (Wageningen University) & Michiel Köhne (Wageningen University)

Large scale extraction of resources to feed the world market has met fierce resistance all over the globe. Actors of many different kinds taking part in this resistance, do so for a variety of reasons, from different perspectives and with different goals. In this panel we will have the different ways of being part of resistance come to the fore.

Grassroots resistance by actors that before might never have identified with activism become implicated in how extraction affects their homes or their activities and seek to stop such extraction. People working at NGOs that professionally pursue certain interests or ideals may decide to add specific cases to work on while leaving others. Engaged academic researchers may analyse resistance in relation to other research interests and have their own reasons to work on specific cases of resistance. These actors meet each other in the field and may find value in sharing information and building medium or long time relationships. This raises questions on how to understand resistance. What is it that actors pursue through their resistance? What are the different ways in which they perceive value in their opposition to extraction?

In our Resistance Café different kind of actors will reflect on their own activities in resistance and on how they see the others from their different perspectives. By means of this round table panel we hope to get insights in how these different perspectives relate.

## **42: POLLEN Roundtable**

Convenors: Stasja Koot, Bram Büscher, Rob Fletcher, Wageningen University

POLLEN is the Political Ecology Network and the PE-3C conference is the first POLLEN biannual conference. In order for POLLEN to function effectively as a network and to serve the autonomous political nodes that form it, we are organizing this roundtable to get your input on:

- POLLEN governance
- The network's central principles
- Fundraising and the control of money
- If it works out, even decide who will organize the next biannual conference in 2018.

Please consult the relevant information on [www.politicalegologynetwork.com](http://www.politicalegologynetwork.com) and join the debate!



## **43: Water in Africa**

Convenor: Han van Dijk, Wageningen University

### **Common, private, or public? Contested meanings of water in the Waterberg, South Africa**

*Michela Marcatelli, International Institute of Social Studies (ISS), Erasmus University  
Rotterdam*

The legislative framework of post-apartheid South Africa declares water resources both a common property for all and a private property (based on land ownership) for some. The tension implicit in this arrangement becomes manifest in a formerly 'white' rural area such as the Waterberg. Here, in fact, white landowners continue to have more than enough water to satisfy their domestic and productive needs, whereas black township residents suffer from severe water shortages. In this way, property relations around water, which are being reinforced by the current conversion of the Waterberg into a wildlife destination, reproduce and even naturalize structural conditions of inequality in access to natural resources.

The aim of this paper is to look at a largely unexplored dimension of the property question in relation to water resources, namely to what extent such question can be addressed and possibly solved through the provision of public water services. By questioning the very notion of publicness, this paper intends to shed light on the category of public within the South African water debate and to move beyond the narrative of municipal failures - according to which people's water needs remain unmet because of local government inefficiency. As there is nothing 'natural' about the idea of publicness, this paper will show how (and why) different actors in the Waterberg produce contested meanings over public and water and how their ideas and associated practices promote or rather hamper a just redistribution of the resource.

### **Human rights violations in statutory water law in Africa**

*Barbara van Koppen, International Water Management Institute*

The neo-liberal promotion of participation and subsidiarity since the era of Integrated Water Resource Management masked an unprecedented centralization of state power over water resources that increasingly enables 'lawful' water grabbing as – an often ignored but vital – component of foreign and national large-scale land grabs. Focusing on Sub-Saharan Africa, this paper unravels how the African states, supported by the World Bank and donors, bolstered the dispossession of customary water rights regimes since colonial times by reviving permit systems as the only statutory water law (except South Africa's legal recognition of white-dominated prior, highly unequal 'Existing Lawful Uses'). In some states, rights are even tradable. States further flexed their muscles as formal monopoly owners of

the nation's water resources by transforming this legal system into a taxation tool. Yet, officials widely recognize, informally and formally, that full-fledged implementation is logistically impossible. The paper identifies how this state of affairs increasingly favors the few large-scale investors in water infrastructure at the expense of the large majority of rural and peri-urban small-scale users. The paper explores two questions in particular. First: how can human rights frameworks be invoked to articulate the intrinsic injustices of current permit systems? Second, what alternatives are emerging both within and outside Africa?

### **Managing Pressure - a Situated Perspective on the Changing Landscapes of Water Access in Nairobi**

*Sophie Schramm (TU Darmstadt) & Basil Ibrahim (Independent consultant and researcher in East Africa)*

Water supply in Nairobi is a muddy, complicated and unequal matter reflecting broader dynamics of urban resource distribution, politics and power relations. The stark socio-spatial fragmentation of the city reveals how water flows have long coincided with urban housing and income patterns. However, in a break with distribution policies that regularly lead to water deserts in the poorest parts of cities around the globe, recent water sector reforms have shifted Nairobi's landscapes of water access. The expansion of access for some of the city's slums, and the entrenchment of long-standing price and supply advantages for high income districts sit at odds with the increasing unavailability and high cost of water in lower-middle and middle-income areas. As an expanded reticulation delivers water into slums that have hitherto been completely excluded from infrastructure provision, residents of estates designed to provide the amenities of modern urban living with individual connections to the city-wide water grid find themselves cut off from regular supply. This forces them into complex, expensive sociotechnical infrastructures for the private purchase and storage of water. We examine the various human and technological innovations that have arisen in response to this water crisis in a middle-income estate that sits right outside Kibera - often referenced as Africa's biggest slum. Exploring the politics of water supply in Nyayo HighRise, our paper addresses the physical as well as political pressure that has led to the privileging of the informal settlement over the estate. We develop a situated perspective that shows how staff of the water company, reform-mandated 'citizen Water Action Groups', resident associations and a human infrastructure of porters and vendors subvert formal systems, manipulate local water flows, and manage popular and water pressure beyond formal policies and planning.

## **Of Water and Stones: Citizen water access strategies in South Africa's liberal democracy**

*Mary Galvin, University of Johannesburg*

South Africa enjoys the image as a world leader, achieving the Millennium Development Goal of halving the proportion of people without access to water and implementing its progressive rights-based legislation and public policies promoting free basic services and participation. But the local reality is different: widespread dissatisfaction with and protest against municipal water services delivery. Civil society organisations often attempt to use invited spaces to seek recourse for their lack of water access and engage the state through various expressions of loyalty. Sometimes this generates a transformative role in widening the democratic space, but often the contradictions leave civil society frustrated and ready to participate in service delivery protests, about a third of which are considered by the SA Police as 'violent'<sup>1</sup>. The paper uses a nationally-based analysis drawing on established datasets in conjunction with local analysis based on focus groups and in-depth interviews in Durban, known as eThekweni Municipality. This city is lauded as one of the most successful water utilities in Africa, e.g. in winning the 2014 Stockholm Water Industry Award. But dysfunctionality in formal municipal systems of citizen engagement reveal wider implications for the political future of South Africa.

## **The multiple groundwater enclosures in Morocco's Saïss region**

*Lisa Bossenbroek, Marcel Kuper and Margreet Zwarteveen*

In this article we use the concept of enclosure to understand how groundwater distributions, use and access are altered in a context of capitalist expansion in the agricultural plain of the Saïss in Morocco. We base our study on a grounded ethnographic approach consisting of one-year fieldwork extending from 2012 until 2015. In this region groundwater is increasingly becoming a lever of agrarian transformations and is more and more monopolized by new investors. The increase of groundwater access and use are interlinked with changing land policies and the growing number of 'modern' farming projects, which are strongly encouraged by "Le Plan Maroc Vert" (PMV); a plan that aims to modernize the agricultural sector and to intensify agriculture. By interlinking our grounded ethnographic approach with the idea of multiple enclosures we illustrate how the groundwater enclosure happens in tandem with changing tenure relations; the use of new technologies; and through a discourse of modernity. We further illustrate how the groundwater enclosures happen through and are enacted by the gradual dissociation of groundwater from its socio-cultural and territorial context; growing social inequities; and violent expropriation. While groundwater is increasingly flowing away from peasant families who relied on water for sustaining their livelihood, water is now flowing to new "entrepreneurs". They have been created by the PMV, its linked subsidy system and the modernization discourse. Their farming practices are supposed to be "modern", "efficient", and "productive" and to

contribute to the increase of the water productivity. Nevertheless upon meeting them we were confronted to a strange asymmetry between their subjugation as “efficient modern entrepreneurs” and their actual practices and self-presentation. First, various new “entrepreneurs” actually consider their new farming project as leisure or as a retirement plan. Second, they engaged in standardized modern farming projects consisting of grapes or fruit trees. Because of the growing number of similar “modern” projects they find difficulties to sell their products on the national market. The discrepancy between the making and the being of the new “entrepreneurs” both illustrates the power of the modernization discourse and its disruptiveness as well as the various cracks that it consists. As such the enclosure is not total, which provides some space to probe and see alternative development trends that might be less disruptive.

## 44: Violence, hunting and contested industries

Convenor: Bram Büscher, Wageningen University

### **Making sense of violence: Practices of conservation and hunting on private game farms in KwaZulu-Natal's 'Battlefield's Route'**

*Jenny Josefsson, University of the Free State & the VU University*

Nature conservation practises have always contained elements of violence, as exemplified by the recent upswing in militarised antipoaching efforts in South Africa and elsewhere, and also by hunting and conservation histories from the 19th century and onwards. My first argument in this paper is therefore that violence is embedded in the very core of 'how to do' conservation and hunting. It is however not only in formally protected areas that uniformed and armed men and women are deployed to engage in violent tactics. Private wildlife production has appropriated very similar methods and tools to protect, enclose and define landscapes, people and wildlife. The justificatory narrative for these practices is constructed around security and exclusivity. Wildlife and certain people hunters, tourists, precious trophy animals and landowners, must be protected from danger poachers and trespassers. The sometimes fortresslike gates and fences ensure exclusive and safe use (for some) of this 'wild' space, whilst excluding 'Others'. I argue that these attributes, together with less visible suggestions and actions of violence, lend themselves to a commandandcontrol setting with rigid hierarchies and uneasy power dynamics. I further suggest that current and past practices should be read through a lens of *intersectionality*, so as to consider aspects of race, gender, class and also nonhuman animals. Through this, I examine the various actors and means of violence in the huntingconservation context, and those who are marginalised or even suffer fatal consequences as a result of this paradigm. The empirical contribution of this paper shows various aspects of how violence is exercised to realise and manage private game farms in South Africa. I present a reading which links past and present conservation practices with local histories and identitymaking, and the specific location of the case studies presented here, the so-called 'Battlefields Route' in KwaZuluNatal, has its own very violent history, which is often used to support the legitimatisation of violent practices on the farms.

### **Materials of Destruction: profit, violence and ecological erasure**

*Anne Gough, KTH – Environmental Humanities Laboratory*

The main questions driving this approach to examining the nexus of militarism and ecological destruction are rooted in the spatial politics and practices of colonialism and climate change. Colonialism is "violence in its purest form" (Fanon 1963) and climate change itself is violence (Solnit 2014), thus violence from above is the field of encounter between colonialism and climate change. Violence is experienced in a myriad of ways, through several different forms.

This paper presentation will focus on the materials of enclosure and war, imposed to consolidate profit.

Some influential scholars have called for new studies that “illuminates the complex factors, actors, contexts, and events that lead to violence without losing sight of the devastating consequences of violence in destroying social relations, scorching landscapes, decimating cities, and sundering lives” (Khalili 2013). I propose that reading and living colonialism and climate change as violence could expand the crucial role political ecology can play in contributing to understanding global power relations in war as well as its direct ecological impacts.

I will do this by connecting two stories. The first is the accumulation of profit by the weapons manufacturers. An industry that greets every act of war with an increase in stock price and for whom the increasing human death toll in the Middle East is a “growth area” (Fang 2015). Their logic of profit accumulation and their manipulation of public discourse (Fang and Jilani 2015) have served to fuel conflicts in countries like Yemen. The U.S. backed Saudi Arabia military campaign has killed thousands and displaced 2.3 million people in addition to decimating centuries of Yemeni distinct cultural heritage landscapes. These stories illustrate state failures, and the systematic erasure of people, places and land.

### **Slow Ecology and Environmental Justice: The Wake of Toxic Industries**

*Alice Mah, University of Warwick*

This paper proposes the critical framework of ‘slow ecology’ for revealing hidden cases of environmental injustice. ‘Slow ecology’ combines ideas of ecology, including its multiple meanings, with Nixon’s (2011) focus on the ‘slow violence’ of environmental harm, and other proponents of ‘slow’ science and reasoning (cf. Stengers 2011). The concepts of urban and political ecology draw on insights from Marxist political economy and uneven capitalist development, revealing hidden connections between sites of production and consumption around the globe. However, the concept of ‘ecology’ also has important methodological implications, for example Choy’s (2011) idea of ‘ecologies of comparison’ as a heuristic to balance different ethnographic case studies of environmental politics. I argue that environmental justice scholarship needs to refine its methodological tools to include ‘slow ecology’, particularly in the Internet age with its fascination with real-time data and disaster headlines.

Slow ecology extends methods of multi-sited ethnography, of ‘following’ chains, paths, or other relations between sites (cf. Marcus 1995; Knowle 2014) to become more multi-faceted. To track the ‘slow’ health effects of toxic pollution, one should not only look in areas with strong voices of activism or resistance, or in the wake of disasters, but in suspected toxic sites: chemical industrial facilities, landfills, and brownfields. This paper

focuses on a 'slow ecology' of the petrochemical industry, tracing its sites of production, its supply chains, and its consumption, traversing countries, regions, and cities. I examine its wake, including people who are fond of it as well as those who resist it, those who feel that they suffer health effects, and the history and frequency of accidents, disasters, spills, and controversies. The method of 'slow ecology' examines the strong, loud voices, but it also examines the silences, and the structural reasons behind them.

### **The Commoditization of Nature and Death as Development Strategy in a Declining Industrial Resource Hinterland: the Bear Hunt Controversy in Northern Ontario**

*Thomas Dunk, Brock University*

The bear has long had a significant symbolic presence in the many societies of the global north. Irving Hallowell's classic text on bear ceremonialism described the ethnographic details of bear ritual and myth in "traditional" societies where the presence of and interaction with actual living representatives of the species was likely. Despite the elimination of bears from much of their original habitat, they continue to be potent political signifiers within some regions of modern states. This presentation examines how bears function as important tropes in debates about security, immigration, and economic transformation, especially in regions struggling to come to terms with the effects of neoliberal economic and social policies. The decline of natural-resource-based industrial activities, the growth of service and tourism sectors, and environmentalist and animal rights movements have significantly changed attitudes towards wild animals, and carnivores in particular.

All of these transformations are bound up with the ongoing commoditization of nature and natural processes. This paper will draw from research on a two-decade controversy about bear hunting in Northern Ontario (Central Canada) to argue that the decline of an environmentally destructive, resource-based industrial economy has not ended the commoditization of nature and natural processes. Industrial production has been replaced by a post-industrial economy in which the killing of wild animals figures prominently as a basis for capitalist economic development.

## **The political ecology of corporate social responsibility in the mining industry**

*Tomas Frederiksen, University of Manchester*

This paper presents findings from research comparing corporate social responsibility (CSR) pressures and practice in the mining sector in Zambia, Ghana and Peru. Recent years have seen changing pressures on mining companies creating a situation in which CSR in the sector is “arguably the most extensive of any corporate sector” (Slack 2012, p.180).

After sketching the drivers of these changes, the paper examines the functions that corporate social responsibility projects perform for the mining industry at different scales of governance with a particular focus on the local. Four main functions are examined: CSR as public relations, CSR as development, CSR as instrumental, CSR as a political tool. These functions are all shaped by the business imperatives of the mining industry and the tensions and contest it seeks to manage through CSR activities. The drivers and functions of CSR have important consequences for the forms of CSR seen in the developing world and its possibilities to support inclusive development. The paper ends by arguing that political ecology analyses have largely eschewed detailed analysis of companies and there is a need to develop tools for examining the processes which drive company behaviour, pointing to ways to advance this research agenda.



## **45: Contested water environments**

Convenor: Simon Bush, Wageningen University

### **"Saving the river from the open pit": Neutralizing discourses around Mongolia's Oyu Tolgoi mine**

*Marieke Meesters*

The Social License to Operate is a contested concept, coined to increase local communities' engagement in predominantly mining operations. Critics have argued that this concept is used selectively, that it is provided by the state instead of the local stakeholders, and excludes marginalized groups. This paper explores how the Social License to Operate of the mining project Oyu Tolgoi in Mongolia is constructed and performed and what its effects are. Combining neutralization theory with Foucault's concept of governmentality yields an indepth theoretical approach of techniques to conceal harmful conduct. Based on three months of ethnographic fieldwork, this paper contrasts the discourses of Oyu Tolgoi, nomadic herders, and the Mongolian government. The diversion of the Gobi desert's most important river, initiated and carried out by Oyu Tolgoi, is used as a case study to describe these discourses. It is argued that through different mechanisms of governmentality environmentally harmful mining related operations are neutralized by the company and the Mongolian government. With this neutralizing discourse, they argue that the river diversion is the only possibility to save the river. The company denies responsibility for water scarcity and pastureland degradation as a result of the river diversion, though this is central in the discourse of the herders. The Social License to Operate lacks support of local governments and local herders, while the latter seem to be disproportionately affected. I argue that the Social License to Operate of the mining project Oyu Tolgoi in Mongolia can function as a mechanism to conceal practices that would otherwise be considered as harmful.

### **Climates of Contestation: Political Ecologies of Development, Adaptation, and Protest in Coastal Bangladesh**

*Kasia Paprocki, Cornell University*

Once infamously called a "basket case," today Bangladesh has become both the poster child and laboratory for development interventions promising to reduce vulnerability through adaptation to climate change. This emergence results both from the sense of impending (even already existing) social and ecological crisis in rural coastal areas, as well as Bangladesh's role in a broader global development regime. The result is an "adaptation regime" which de-historicizes and de-politicizes dynamics of ecological change in the region, charting new geographies of intervention by donors, policy makers, researchers, and development agencies. The adaptation regime also governs the kinds of livelihoods and futures which are seen as viable in the near- and long-term future.

One of the key transformations being put forward in the name of adaptation and development is the expansion of export-oriented saltwater shrimp production on what were historically the rice fields of the southern delta region. This vision is animated by a discourse of climate crisis that suggests that the coastal region is no longer viable for agriculture, and that as such commercial shrimp farming represents an opportunity for Bangladesh's national development.

Based on over two years of ethnographic research in three villages in this region, I examine the strategies local communities deploy to navigate competing visions of the future. While some communities themselves anticipate the dissolution of rural livelihoods *if* shrimp cultivation expands and continues, others have actively mobilized for a return to rice production systems in landscapes where development agencies have deemed agriculture to be no longer viable. I bring these diverse imaginations of rural futures together in order to examine the role of social movements in shaping local ecologies in the face of climate change, as well as to question developmentalist narratives of the inevitability of crisis and erasure of those futures.

### **Dammed Himalayan Rivers in Leaky City Taps: The Structural Violence of Urban Water Flows**

*Georgina Drew, University of Adelaide*

Water flows in South Asian cities such as New Delhi are heavily dependent upon inter-basin resource transfers. This technical nomenclature obscures the structural violence that allows water to be extracted from upstream riparian contexts for use in overactive urban water metabolisms. Through an investigation of the ways that water is strategically directed from the northwestern Indian Himalaya into urban zones, this paper outlines the suite of challenges for equitable resource use and management that occur at a range of locations across various scales. In particular, the discussion focuses on a cascade of dams, water diversion canals, and urban water flows to show the varieties of structural violence that take place at each major point of water management. This system is marked by large, ecologically destructive projects on the one side and leaky, inefficient city infrastructures on the other. Bolstering the observations, the paper draws upon the author's experience of long-term ethnographic fieldwork in the Uttarakhand Himalaya as well as her more recent work observing water management practices, and interviewing water experts, in India's capital city. As a tool of analysis, political ecology is employed to illuminate the vast scalar disparities in resource access as well as the distinct power struggles that occur at numerous points of water use contestation. While there are options and alternatives to begin correcting some of these inequities, imbalances, and points of structural violence, the paper also discusses the market forces and political hesitations that have prevented their

implementation. These challenges are once again framed through a political ecology of the different levels of access and power associated with South Asian water flows.

### **Water diplomacy and information sharing in Sino-India water disputes**

*Lei Xie, University of Exeter*

Water information sharing represents one preliminary institutional form in formal negotiations to resolve conflicts over transboundary rivers. In scholarship on transboundary water resource management, it is argued that sharing water data is key indicator of success in forming cooperative activity. However, such findings are mainly found among countries where information governance is prevalently established. In non democratic contexts, different national interests are vested in water data use and water agreement exhibits various natures and may not necessarily function as an effective mechanism for resolving conflicts.

This article adopts the case study of resource management dispute over the Ganges, Brahmaputra and Meghna rivers (GBM) that crosses national boundaries between China, Bangladesh, Nepal, Bhutan and India. As an upper riparian state, China has been accused of exploiting water resources to address its own needs without negotiating with its neighbours. By investigating the formation and compliance of water information sharing agreements between China and India, this article builds on the finding that China's national interests in water resource use drive the strategic use of water information agreements and therefore influence the outcomes of water disputes. China's behaviour indicates that it is willing to partially provide water data in exchange for better foreign relations, so resolving Sino-Indian water disputes is effectively of secondary importance to more conventional security issues. It is therefore concluded that water agreements, particularly in the form of bilateral mechanisms, have only limited effect for resolving conflicts.

## **46: Resistance and development under neoliberalism**

Convenor: Kees Jansen, Wageningen University

### **'Uncivil' disobedience to green neoliberal reform in Greece: A 'conversation' between Foucault and Gramsci on resistance**

*Zoi Christina Siamanta, Birkbeck, University of London*

In the framework of the transition to the so-called 'green economy', a plethora of older and newer market-based policies to and proposals for environmental conservation and management has recently proliferated across the world. At the same time, contestation has arisen in varied contexts, which necessitates urgent attention, conceptualisation and critique, given increasing evidence of the socio-natural degradations green economy policies entail and an evolving contested terrain of global environmental governance. This paper examines a case of forceful local socio-ecological resistance to the production of green energy through private Renewable Energy Resources (RES) projects in post-crisis Greece and particularly in the island of Crete. It explores the manifestations, drivers and socio-political specificities of this ongoing struggle, including situated narratives, as well as how the struggle is being dealt with directly and indirectly by the hegemonic order. By critically engaging with the writings of Foucault and Gramsci, the paper provides nuanced insights into the contemporary political ecologies of conflict and resistance to 'green' neoliberalism. In doing so, it also foregrounds the transformative potential this struggle holds and the possibilities opened up for (re)composing nature-society relationships. The paper argues that political ecology now more than ever needs to engage more creatively with such political disruptions and associated marginalised knowledges if it is to prove more liberatory in practice. In this vein, the paper ends with considerations of how possibilities for (re)animating nature-society relations emanating from practices of resistance can be mobilised for formulating and enacting alternatives to the socio-ecological predicament of the Anthropocene.

### **Accumulation by Dislocation: Enclosures and Neoliberal Developmentalism in Contemporary Turkey**

*Fikret Adaman, Bengi Akbulut & Murat Arsel*

We are witnessing the increasing use of the notion of primitive accumulation, in its various reincarnations (e.g. accumulation by dispossession, accumulation by contamination, etc), to describe processes that shape the space-state-capital nexus in a variety of settings within contemporary capitalism. Such reworkings of the concept and the renewed attention it captures can be taken to imply its purchase as an analytical category. In particular, the scholarship around this concept reveals how non-economic forms of capital accumulation

based on expropriation of space and nature are acquiring ascending significance in today's world.

While the concept has been used productively (yet) mostly as a descriptive device, we aim to take a different route. Our motivation is rooted in two interrelated observations: firstly, the notion of primitive accumulation, in its recent uses, has largely been divorced from the intertwined dynamics of changing forms of labor (immediate producers separated from the means of labor and thus forced to sell their labor power) as well as the physical-spatial transformation(s) it implies. Secondly, the role of the state is often left unaddressed and/or implicitly assumed to be limited to passing appropriate legislation (i.e. Acts of Enclosure), while contemporary nation-states are more increasingly emerging as both setting the state machinery and participating in processes of capital accumulation.

Building on these observations, we aim to operationalize a more refined understanding of enclosures and the dynamics of accumulation they are enrolled into by highlighting the broader constellation of markets, state and capital surrounding them. More specifically, we explicate the recent regime of developmentalism in Turkey by the concept of accumulation by dislocation to highlight that Turkey's contemporary growth strategy relies heavily not only on the expropriation of space and resources but also their dislocation and transformation. In doing, so we will draw particular attention to (i) the changing nature of state's participation in accumulation processes (ii) the altered forms of land use enclosures giving rise to new forms of labor relations, both in rural and urban settings.

### **Conservation or Infrastructure Development? Apolitical ecological perspective of the Competing claims on the Bwindi forest, S.W Uganda**

*Christine Ampumuza, Wageningen University*

For a long time, the Bwindi forest has been an area of contestation between local communities and conservationists. To address the challenges, several Integrated Conservation and Development Projects were initiated to generate alternative livelihoods for the communities. However, recently, despite huge sums of conservation money assumedly being used to offset conservation costs and fund development projects, cases of illegal resource use and plans for big infrastructural development at national and regional levels are becoming common and Bwindi forest in Uganda has been no exception to this turn of events. By analyzing the political nature of the competing claims on the Bwindi landscape, this paper delves deeper into the political, economic and social processes at multiple scales that can explain the quest for the seemingly new claims/pressures (that is infrastructure development, and mining among others) on resources in the Bwindi landscape. The paper also pays special attention to the position of the various local community groups and how they engage with the political process that has continued to allocate resource use through contestation and sometimes conflict. From a political ecology

point of view, the conservation problem at Bwindi could be interpreted as a result of increased demand that pressures actors to increase supply of tea, minerals and tourism products. However, beyond political ecology, analysis of the 'new' actor-networks at Bwindi, highlight the fact that the current competing resource uses are a reflection of another phase of political engagement between local communities, tourists, businessmen, conservationists, activists, and political leaders among others who draw from international, national and local institutional frameworks to claim their rights to resource use.

**Medicinal plants, from Chimborazo to the world: An Ecuadorian case of peasant women federating for local resistance and agro-productive transformation.**

*Aline Arroyo Castillo, CAMAREN, Ecuador*

This article discusses the experience of a collective of peasant women farmers in Chimborazo - Ecuador, who joined to recover the traditional practices of cultivating medicinal herbs. The case experience of this "Jambi Kiwa" Association shows how coordinated local action and resistance can reach out at global scales. This associative microenterprise produces and processes medicinal, aromatic and cosmetic plants with an agroecological approach and this has positioned its products in Ecuador and internationally in France, Spain, Canada, United States and Japan. Their products have organic and fair trade certification.

Jambi Kiwa shows how the recovery of ancestral knowledge enables environmentally sustainable agricultural production and human health through the use of the medicinal properties of plants. The case also examines whether and how small producers can fight highly unequal power relationships when trying to connect to a global market on more equal terms, while creating jobs and income to improve the living conditions of their families. The paper analyses the role, opportunities and obstacles of organization strengthening efforts with an overarching practical, political and symbolic leadership of women -- rural women who had to face new challenges when positioning themselves in the market for export.

Faced with a market dominated by agribusiness, in terms of hoarding of water and land, with state policies and market that favor large producers and in an environment of social exclusion, they had and still have to cross huge barriers. Such experiences of local resistance that connect with global resistance processes are testimony of collective, bottom-up efforts to construct and fight for a fairer world, to achieve a balance with nature, to recover endogenous practices, and to confront the dominant powers in a capitalist order.

## **47: Eviction, conservation and agency**

Convenor: Clemens Driessen, Wageningen University

### **Governing the arctic anthropocene: a critical political ecology on the appropriation of indigenous herding pastures for the purpose of wind power development**

*Anett Sasvari, Uppsala University*

Recent large scale expansion of wind power in Sweden has systematically called upon green credentials to justify the appropriation of indigenous herding pastures for the development of renewable energy. This "green transformation" of landscapes and accompanying production of social injustices, resulting from the restructuring of rule and authority in the access, use and management of resources, is part of an emerging global process of deep and growing significance involving an extraordinary variety of market actors now responsible for the environmental decision making process (Fairhead, Leach and Scones 2012). Drawing on ethnography from Jijnjevaerie herding unit, one of the most intensely prospected Sami herding lands for wind power production, examples will highlight that while Saami participation in consultation processes has been increasingly requested as the appropriate approach to handling land-use conflicts, vague legal and political guidelines in land-use planning has shifted the responsibility of evaluating risk, impact and land rights to the project proponent, who determines and constraints the level of influence that can be exercised throughout the consultation process by essentially applying a rehearsal of colonial tactics of discrediting damage claims and infantilizing participants. This calls for a need to understand the operative principles of the consultation practice, in its including/excluding capacity, whereby nature, livelihood and culture is converted into different forms of estranged value, and where Saami rights are effectively transformed into commodities. As environmental problems become the subject of market logic and capital flows, the processes of power and inequality of the fossil fuel economy are reproduced and situated in a deep seated legacy of colonial practices, guided by the rational that the Saami herding livelihood has to either co-exist with industry or give way to development.

### **Green blanketing hills and people's persistence against forced eviction: local knowledge and Buddhist environmentalism vis-à-vis state's forestry in a National Park of northern Thailand**

*Quang Dung, Nguyen , National University of Singapore*

The forest in my case study is a site of ascetic practice, uplanders' livelihood and ongoing dialogue among environmental discourses. In over 30 years since the area was gazetted as a national park, the Lahu people in Tak province have been caught in the paradigm of conflict between customary patterns and new changes in their livelihood. By taking an active role in conservation, documenting and circulating their efforts, they maintain a conscientious and

proud existence in the hills. They have been attempting to gain visibility, cultivate connections, and, by combining and preempting a number of ecological discourses, to establish a narrative of self-reliance. The combination of 'Buddhist environmentalism' and local forest-use expertise provided alternatives to traditional livelihood and became a dynamic and adaptive force against state forestry agenda; contributing heavily to the resolution of spatial contestation and environmental disputes between locals and state power. The Lahu turned the national park into a key site of environmental sustainability – an effort that has been acknowledged by mainstream media, through numerous awards, propelling mass awareness and support from the greater Thai community, and forming influential social alliances. On a daily basis, there are forms of compromise and 'hidden sympathy' from forest patrollers. Locals violate park zoning rules, exploiting the day to day reality of park regulatory apparatus, including patrollers' unwillingness or inability to 'police' them. Looking closely at locals' dynamic responses to various state's politics, I find that the real source of self-empowerment rests in their new discursive regime of ecological knowledge. This research proposed a new way to imagine protected areas as not a site of total contestation. Conflicts over environmental discourses cannot be reduced to a simple standoff between two opposing sides - the state and local tradition - but rather can be seen as a process of compromise, combination and negotiation among many discourses.

### **How the zimbru got her tale: An ethnographic case study exploring local and global narratives behind 'the bison comeback' in Țarcu rewilding zone, Romania**

*Clare Bissell, UCL*

'Rewilding' is a form of ecological restoration focused on enabling land to recover natural processes that have been altered by human activity (Fraser 2009). Recently, rewilding has gathered momentum throughout Europe as an exciting and innovative conservation tool to help bring back areas of 'wilderness' (Monbiot 2013). The reality of any given rewilding project can be more complicated than the media coverage acknowledges. These complexities are discussed throughout this paper.

There is a shortage of both ethnographic studies related to rewilding and critiques of the concept from a political ecology perspective. This gap prompted the following piece of research. The aim was to explore the social, political and economic narratives that frame one rewilding project in Romania, and use this to critique rewilding praxis. The researcher spent two months carrying out ethnographic fieldwork within a semi-subsistence farming village in Romania, which sits within a rewilding zone managed by WWF Romania and Rewilding Europe.

The research findings showed a disparity between local priorities and perspectives and those being pursued by the conservation NGOs. The paper offers a critique of rewilding as a form



of protection against exploitative development, drawing on political ecologies from other conservation areas around the world.

The paper concludes that rewilding follows a similar pattern to other conservation initiatives by aligning with neoliberal agendas at the expense of local narratives (Brockington and Duffy 2011). As such, rewilding does not currently go far enough to meet its agenda of reversing negative anthropogenic global impact. The recommendations include practical suggestions regarding how to implement participatory qualitative development that prioritises well-being. Aimed at activists, academics and policy makers alike, this paper ends with a call to action: now is the time to rewild human beings.

### **The political agency of marginalised community: between discourse of conservation, political patronage and extraversion**

*Francesca Di Matteo, Ecole des Hautes Etudes en Sciences Sociales, Marseille (France)*

In her work on Western Kenya's communities associated with Kalenjin groupings, Gabrielle Lynch has brilliantly showed that *being indigenous stands as the best strategy of extraversion* (Lynch, 2011). In fact, *discourses of indigeneity, marginalisation, minority groups rights and environmental protection* are a channel through which conveying not only socio economic grievances, but also claims of *cultural distinctiveness* and *local nationalism*. Against this background, the paper investigates the political strategy of a particular group, among the ones mentioned in Lynch's work, who asserts its identity as Ogiek, purportedly composed of hunter-gatherers inhabiting the Mau forest, or its edges. More specifically, the focus of this research is on the group's claim of communal ownership of its ancestral territory, which extensively comprises the Mau forest. Interestingly, different levels of analysis can be dissected, such as the role played by international activists putting forward, inter alia, the conservationist discourse in order to sustain the claim of ownership of the forest, hence informing, if not designing the advocacy strategy of the group; the political economy of state intervention in and surrounding the forest, through settlement schemes that have opened up the territory to "migrant communities" hence exacerbating inter-communitarian relationships and giving raise to conflicts; finally, at the policy level, what is striking and object of inquiry is the remarkable visibility and the significant participation and representation of this group in nearly all arenas pertaining to land issues, not only within national legislative processes by directly engaging the state, but also within civil society and its network. The paper will explore how marginalized communities have built on political agency to ( attempt to) influence state action by identifying the drivers of collective action, to say how "communities" have structured themselves and their claims.

## **Communities' Perspectives on Policies of Exclusionary Development and Displacement in Cambodia**

*Esther Leemann, University of Lucerne*

Drawing from my ethnographic research and collaborative ethnographic filming on the social, cultural, political and livelihood impacts of economic displacement on the Bunong - an indigenous people from Cambodia - the paper focuses on the dynamics of and linkages between processes of exclusionary development Bunong communities are currently confronted with. The communities have been struggling for years now to follow the state designed and controlled process to get a communal land title in order to protect their land and forest resources, while in the meantime, their land has been signed away by state authorities to large-scale plantations or conservation areas. While dynamics of dispossession and removal induced by government sanctioned large-scale plantations have been accounted for as land grabbing, 'greener' projects such as environmental conservation areas tend to be ignored by the Cambodian media and human rights activists. I outline possible reasons for the different reaction on the alienation of land and have a closer look on the narratives that disguise the two forms of exclusions. I then look into communities' perspectives on and responses to such projects and programs, which fundamentally clash with institutional matrices within which resources are locally perceived, used, managed and contested. I present communities' internal conflicts, when faced with outside parties – be they companies, government officials or conservationists – interested in the land, as well as their collective struggles in order to secure access to land and forests, but also to symbolic resources and development opportunities. The contribution highlights cleavages, inequalities, obstructions but also alignments and cooperation fuelled by new connectivities within and among the various social and political actors involved in these dynamics.